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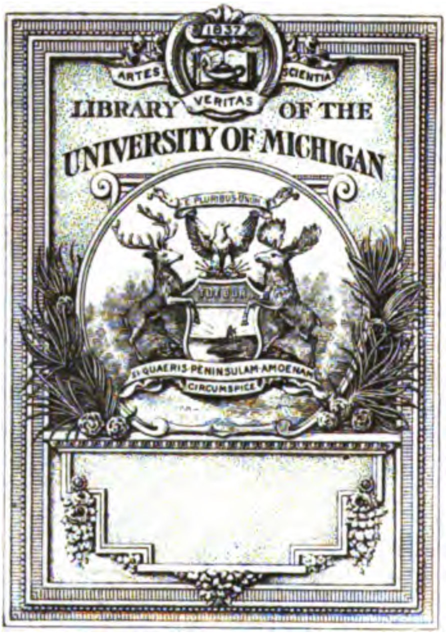
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TRANSACTIONS

OF THE

NEW YORK PATHOLOGICAL SOCIETY

FOUNDED IN 1844.

VOL. IV.

BASED ON THE PROCEEDINGS OF THE YEAR 1881, AND SUPPLEMENTED FROM
THE RECORDS FROM 1844.

JOHN C. PETERS, M.D., Editor.

LATE PRESIDENT OF THE NEW YORK PATHOLOGICAL, NEUROLOGICAL AND COUNTY MEDICAL
SOCIETIES, ETC., ETC.

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1882.

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† Deceased.

EDITOR'S PREFACE.

The New York Pathological Society has ample reasons to be fully satisfied with its progress since the issue of the last (3d) volume of its transactions. Its membership has largely increased; resignations are few; deaths, not many; and as the older members become weary from age, long labor, or increasing professional cares, their places are abundantly supplied by younger scientific men who well keep up the old zeal and enthusiasm of the Society.

The harvest of Gross Pathological Anatomy has been almost completely reaped, and few laurels are now to be gained from its well-gleaned fields: microscopical histology and pathology has largely taken its place, and the majority of our members are now so well skilled in them that the labors of the Microscopical Committee have been greatly lessened. The old line of pathologists which did such splendid work in opening up the broad and fertile fields of macroscopical morbid anatomy is steadily growing smaller, and the new line of skilled microscopical workers is daily growing larger and longer. Almost every specimen is now illustrated by microscopical drawings and slides, and arrangements are partly completed for the formation of a large collection of microscopical slides, the property of the Society.

The work of the Society has not only increased in excellence, but in abundance, as a glance at the long list of the table of contents, and the large index will fully prove.

In the Constitution the objects of the Society are declared to be: "*The improvement of its members in Pathology, and in the*

Diagnosis and TREATMENT *of Disease as founded on Pathology.*" Diagnosis has kept pace with the advances in pathology, and now may be regarded as almost a completed study: but the treatment of disease as founded upon pathology has not been as much, or at least not as minutely and scientifically studied. It may be well for this and all other Pathological Societies to take prompt and proper steps in this direction.

Numerous drawings and illustrations of specimens have been exhibited before the Society, but the Editor and Committee on Publication have not succeeded in securing many woodcuts and other prints for the Transactions. They are much indebted to Drs. Satterthwaite and Wendt for their liberality in this direction, and hope that others will be induced to follow their good examples.

Although the Society has been in existence for thirty-eight years, it has never adopted a seal nor supplied a certificate of membership. The Committee on the Seal and Certificate of the Society is actively at work, and will soon complete its tasks.

The fifth volume of the Transactions will be commenced almost immediately, and will be founded on the papers of candidates, illustrated by similar cases from the older records and archives. It will hence consist mostly of material which has never been published, and with which but few even of its members are familiar.

Almost a full set of the *Medical Record* is required to complete the archives of the Society. Dr. Charles K. Briddon presented a very large number of copies, and is entitled to the thanks of his associates: it is to be hoped that others will soon emulate his generous precedent.

N. B.—Since printing the above Preface, the Society has had to mourn the sudden deaths of two of its most active and important members, Drs. Samuel Whitall and Erskine Mason. Both were highly educated and lovable men, and Dr. Mason, after serving the Society well in various official capacities, was elected its President in 1873, when he had been only thirteen years in practice. He was more especially distinguished in surgical work and pathology, as the transactions of the Society, and the numerous important positions which he held, abundantly attest. He had been Demonstrator of Anatomy in the College of Physicians and Surgeons, Adjunct Professor of Surgery in the University Medical College, Assistant Surgeon to the Eye and Ear Infirmary, and Surgeon to the Bellevue and Roosevelt Hospitals, and to the Colored Home. Both were among the best representatives of the large and rapidly growing class of thoroughly educated, honorable, gentlemanly, hard-working, accurate and scientific, but most pleasant and genial medical men, who adorn and benefit any sphere of life in which they are placed.

At the stated meeting of the Society, held April 12th, 1882, the following preamble and resolutions were unanimously adopted:

Whereas, This Society has learned with sincere regret of the sudden death of a distinguished member, Dr. Samuel Whitall: therefore, be it

Resolved, That his high professional attainments and correct judgment entitled him to a leading position as a medical practitioner, while his uncompromising integrity, his outspoken moral courage and his Christian charity, were characteristics which won for him the respect and confidence of all who knew him.

Resolved, That these resolutions be entered in full on the minutes, and that a copy of the same, duly authenticated, be transmitted to the family of the deceased.

CHAS. K. BRIDDON, M.D.,
R. G. WIENER, M.D.,
J. H. RIPLEY, M.D.,
Committee.

CONTENTS OF VOLUME IV.

PAGE
1. List of Officers and Committees for 1881 and 1882 .... ii.–v.
2. List of Presidents and Secretaries of the Society from its Formation in 1844.... .... vi.
3. List of Members .... vii–x.
4. Preface .... xi.–xiii.
5. Contents .... xv.–xix.
6. Reports of Cases and Specimens Presented during the Year 1881, Supplemented from the Archives and Minutes, 195 Cases 3–380
7. Cases of Pericarditis, 1, 2, 3, 7, 8, 10, 29–33, 100, 101, 138, 207, 210–212
8. Cases of Pleurisy 2, 10, 146–148
9. Cases of Pneumonia 2, 10, 297, 300, 302–303
10. Earliest Tapping of the Pericardium 3
11. Dr. Thebaud's Case 3–6
12. Laceration of the Pericardium 6
13. Sarcoma of the Heart 7
14. Pericarditis in Children 8, 9
15. Cases of Lipoma 11–18
16. Epitheliomata 18-23, 155, 161, 179, 285–288
17. Peritonitis 24–29, 111, 112, 163, 235
18. Abscesses of the Brain 33–40
19. Rupture of the Kidney 40
20. Rupture of the Gall-Bladder 41
21. Diverticulum of the Small Intestines 42
22. A Cavity of the Lung Communicating with the Pulmonary Artery 42–43
23. Osteoma of the Frontal Sinus 43
24. Hypertrophy of the Heart 43, 44, 184-188
25. Composite Tumor of the Testicle 46-47
26. Transposition and Malformation of the Heart 48, 49
27. Aneurism of the Thoracic Aorta...... 50, 51, 52, 71, 194, 226, 301
28. Chronic Alcoholism 52
29. Meningeal and Cerebral Hemorrhages 52
30. Angiolithic Tumors of the Choroid Plexus 53
31. Fibro-myoma of the Uterus 53, 54, 188
32. Hodgkin's Disease 55–64
33. Occlusion of Iliac Vein 60

34. Cancer of the Rectum 64–65
35. Concealed Uterine Hæmorrhage 65–66
36. Caries of the Elbow-Joint 67
37. Fibrinous Cast of the Edge of the Tongue 67
38. Cancer of the Pancreas 67–70, 87–90
39. Occlusion of the Ductus Communis Choledochus 68
40. Cavernous Metamorphosis of Liver 69
41. Round-celled Sarcoma of the Kidney of a Cow 70
42. Multiple Fractures of the Arms and Legs 71, 118
43. Osteo-Myelitis 71
44. Scarlatinal Nephritis 73–80
45. Poisoning with Arsenic 80, 115
46. Cancer of the Dura Mater and Lungs 81, 114
47. Round and Spindle-celled Sarcoma of the Leg 81–82
48. Aneurism of the Abdominal Aorta 82, 84
49. Fissure of the Skull 85
50. Pachymeningitis 85–87, 168
51. Cancer of the Liver 88–90
52. Cancer of the Peritonæum 89
53. Cancer of the Retroperitoneal Glands 89
54. Fibro-Sarcoma of the Breast 91–93
55. Chronic Valvular Heart Disease 93, 97, 99, 108, 184–301
56. Adherent Pericardium 93, 100
57. Œdema of the Larynx 94–96
58. Chronic Albuminuria 94
59. Dilatation of the Stomach 97
60. Tuberculosis 101
61. Cerebro-spinal Meningitis 102, 148–152, 239–246
62. Aneurism of the Heart 103, 208
63. Wickersheimer's Fluid 104, 168
64. Mixed Sarcoma of the Tibia 104
65. Cancer of the Rectum 108, 189
66. Tricuspid Regurgitation 108
67. Fibro-Chondroma of the Ischium 108, 179
68. Filaria Loa and Pulex Penetrans 109–111
69. Gangrenous Dysentery 111
70. Perforation of the Descending Colon 112
71. Bone Encysted in the Lung 112
72. Osteo-Cholesteatoma of the Sylvian Fissure 113
73. Obscure Cerebral Symptoms 113
74. Delirium Tremens 115
75. Special Implication of the Spleen in Arsenical Poisoning 117
76. Abortion 117

77. Injury of Fœtus in Mechanical Abortion.... 117
78. Retarded Development of Fœtus 118
79. Cystic Chondro-Sarcoma of Epididymis.................. 119
80. Osteoid Sarcoma of the Lungs, Liver, etc.... 120
81. Cancer of the Stomach....... ....121, 261
82. Secondary Cancer of the Liver 123
83. Composite Ovarian Tumor, Colloid and Papillary......125, 130, 189
84. Trichinosis.... 130–134
85. Mixed Sarcoma of the Humerus in a Dog.... 134–136
86. Intraocular and Orbital Sarcoma 136–137
87. Congenital Absence of One Kidney................138–142, 263–266
88. Sarcoma of the Upper Jaw...................................143–146
89. Septic Pleurisy in an Infant 146–148
90. Traumatic Origin of Cancer (3 Cases)..... 153–154
91. Dermoid Tumor of the Pharynx 158–161
92. Inguinal Epiplocele 161
93. Transposition of the Lobes of the Liver......... 161
94. Foreign Bodies in the Nose................... 162
95. Multilocular Ovarian Tumor. 163
96. Rupture of an Ovarian Cyst 163–164
97. Sarcoma of the Thigh..................................165–167, 182
98. Glio-Sarcoma of the Retina and Choroid 167
99. Vesical, Renal, and Biliary Calculi........................... 169
100. Large Round-celled Sarcoma of the Testicle, with Illustrations 170–177
101. Unilateral Cryptorchis............ 170–177
102. Columnæ Adiposæ... 177
103. Carbuncle............. 178
104. Aneurism of both Vertebral Arteries........... 180
105. Suppurative Pericystitis 181
106. Nasal Polypus........ 184
107. Supposed Concentric Hypertrophy of the Left Cardiac Ventricle...184–188
108. Fallopian Tubal Pregnancy....... 190–192
109. Medullary Cancer of One Kidney. 193
110. Neuroma 194
111. Implantation of the Nerve of a Dog..... 195
112. Subclavian Aneurism Treated by Needling and Galvano-Puncture........... 196–207
113. Typhoid Ulcerative Pericarditis..... 207
114. Primary Cancer of the Liver.. 209
115. Congenital Dislocation of the Testicle......................... 209
116. Cysto-Sarcoma of the Breast........ 209–223

117. Tubercular Pericarditis....210–212
118. Presentation to Dr. Shrady.... 213
119. Strangulation of the Ileum....215–219
120. False Mesentery....215–219
121. Redundant Sigmoid Flexure....215–219
122. Phthisis in Young Persons....219–221
123. Scirrhus of the Breast....218-222
124. Sarcoma of the Breast.... 223
125. Adenoma of the Breast.... 224
126. Anomalous Liver.... 225
127. Aneurism of the Pulmonary Artery.... 228
128. Laceration of One Lung....228–230
129. Subinvolution of the Uterus.... 230
130. Placental Site.... 231, 289, 291
131. Abortive Ovum.... 232
132. Tonsillar Calculus.... 234
133. Stricture at the Ileo-Cæcal Junction.... 235
134. Lesions of Typhoid Fever....235–239
135. Enormous Hypertrophy of the Ileum....236, 239
136. Rupture of the Intestines (3 Cases).... 246 247
137. Gunshot Wound of the Abdomen....248–256
138. Subperitoneal Hæmorrhage.... 249
139. Probing Wounds of Cavities....253-256
140. Caries of the Tarsus.... 256
141. Caries of the Petrous Portion of the Temporal Bone.... 258
142. Shaven Beard Appearance of Peyer's Patches.... 258
143. Compound Comminuted Fracture of the Skull.... 259
144. Unilateral Nephro-Lithiasis.... 263
145. Obliteration of One Kidney....263–266
146. Leucocythemia....266–269
147. Retroperitoneal Hæmorrhage.... 268
148. Pistol Shot Wound of the Thigh.... 269
149. Gunshot Wound of the Femoral Artery.... 270
150. Chronic Cystitis.... 272
151. Cystic Degeneration of the Kidneys.... 273
152. Necrosis of the Clavicle....274, 277
153. Rupture of the Ileum.... 277
154. Sudden Death....279-285
155. Epithelioma of the Neck....285-288
156. Aneurisms of the Innominata (3 Cases)....293–301
157. Valvulitis Deformans.... 302
158. Chronic Perimetritis.... 304
159. Pessary Retained Ten Years.... 304

160. Bridge of New Tissue in the Vagina.......... 305
161. Tumors of the Cerebellum..........305–318
162. Apoplexy of the Cerebellum.......... 318
163. Abscess of the Cerebellum 317
164. Congestion of the Cerebellum. 317
165. Myxo-Sarcoma of the Neck.......... 318
166. Tuberculous Degeneration of the Lymphatic Glands of the Neck.......... 320
167. Pachymeningitis Chronica (3 Cases).......... 321
168. Cerebro-Spinal Meningitis, with Endocarditis and Pericarditis.. 323
169. Chronic Brain Disease, with Congestion only of the Pia Mater.. 325
170. Gunpowder Removed from the Skin.......... 329
171. Pneumonic Phthisis; Early Formation of Cavities.......... 330
172. Typhoid Fever; Ante-Mortem Heart-Clot.......... 330
173. Thrombus of the Pulmonary Artery.......... 332
174. Purpura Hæmorrhagica 334
175. Enormous Cyst of the Pancreas.......... 338
176. Catarrhal Phthisis; Pleurisy; Carnification of the Lung.......... 341
177. Primary Sarcoma of the Kidney.......... 343
178. Carcinoma of the Bladder 345
179. Prehistoric Syphilis 347
180 Floating Cartilages in the Knee-Joint.......... 349
181. Removal of Great Toe Nail.......... 353
182. Fibro-Myxo-Sarcoma of the Larynx.......... 354
183. Nasal Diphtheria.......... 356
184. Solvents for Pseudo-Membranes 357
185. Aneurism of the Pulmonary Arteries. 358–364
186. Multiple Fractures of the Ribs 364
187. Intermeningeal Hæmorrhage.......... 367
188. Diphtheritic Laryngitis.......... 367
189. Round-celled Sarcoma of the Orbit 369
190. Incarcerated Femoral Epiplocele.......... 372
191. Cysto-Adenoma of the Thyroid Gland.......... 373
192. Atrophy of the Lung 373
193. Carcareous Degeneration of the Heart Valves 374
194. Mitral Stenosis.......... 375
195. Report on the Anatomy and Histology of Pancreas-Cysts...... 376
196. Index..........381–391

TRANSACTIONS
OF THE
NEW YORK PATHOLOGICAL SOCIETY.

MONTHLY BULLETIN,
JANUARY, 1881.

DR. T. E. SATTERTHWAITE, *President, in the Chair.*
WESLEY M. CARPENTER, M.D., *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED AT THE ANNIVERSARY MEETING, JANUARY 12TH, 1881.

1. Sero-purulent and fibrous pericarditis, with double fibrous pleurisy, and single croupous pneumonia.
   By G. W. SWIFT, M.D., CANDIDATE.
2. Large lipoma from the scapular region.
   By JOSEPH W. HOWE, M.D.
3. Epithelioma of the penis (2 cases).
   By JOSEPH W. HOWE, M.D.
4. Acupressure safety pins, new variety of.
   By JOSEPH W. HOWE, M.D.
5. Gunshot wound of the transverse colon.
   By A. B. WATSON, M.D., of Jersey City.

PERICARDITIS.

DR. SATTERTHWAITE presented the following case, with specimen, for a candidate :

SERO-PURULENT AND FIBRINOUS PERICARDITIS; DOUBLE FIBRINOUS PLEURISY ; PNEUMONIA.

By DR. G. W. SWIFT.—G. T., an Italian, thirty-three years of age, a laborer; came to the Bellevue Hospital on Dec. 11th, 1880.

The following information regarding his previous condition was obtained through an interpreter:

On Dec. 4th, he had a chill; and later, pain in the left side, cough, blood-stained expectoration, and embarrassed breathing. During the next week the pain did not vary either in its location or character; but the sputa were no longer blood-stained.

On admission, his cheeks were flushed, his nostrils dilating with each inspiration, and the sclerotics jaundiced. Temp. 101° F. in the axilla; Pulse 100; Resp. 60. The physical signs indicated double fibrinous pleurisy and pericarditis, the latter evidenced by a loud friction-sound. From the patient's history it was judged his first attack had been croupous pneumonia, and that the inflammations just described were consecutive to it.

On the third day the pericardial friction-sounds had disappeared and were replaced by signs of a distended pericardium. The condition of the rest of the thorax appeared unchanged, and the general condition of the patient did not alter materially until Dec. 20th; for the dyspnœa was not relieved, and the respirations did not fall below 32°, while the pulse remained about 100, occasionally intermittent, and generally feeble. The temperature was of the hectic type, ranging between 102½° F. and the normal. There was also profuse sweating, and the expectoration was muco-purulent and copious.

On Dec. 27th, the dyspnœa became more decided, and it was resolved to puncture the pericardium on the following day; but the patient chanced to be asleep at the time appointed for the operation, and at a later hour he was found dead.

Autopsy, Dec. 30th, forty hours after death. The pericardial sac reached from nipple to nipple, and was distended with sero-purulent fluid to the amount of three pints. The visceral layer of the pericardium was thickly coated with fibrin, and also the parietal layer, the deposit having a honey-combed appearance. Both lungs were compressed, and adherent to the chest; but in the anterior portion of the right pleural sac, there was a moderate amount of sero-fibrinous effusion, and the lower lobe of the right lung was in a state of pneumonic consolidation.

EARLIEST NOTICE OF THE OPERATION OF TAPPING THE PERICARDIUM, IN THE PROCEEDINGS OF THE NEW YORK PATHOLOGICAL SOCIETY.

In 1862, **Dr. Krackowizer**, in answer to a question from Dr. Sayre, as to the practicability of puncturing the pericardial sac, stated that there were a few instances on record where such an operation had been resorted to. His belief was that puncture would be preferable to more indirect means. He had seen the operation performed and with the small double suction pump; he thought it would be safe.

Dr. Krackowizer knew of another case in which the operation was performed by Prof. Schon, of Vienna. When the trocar was inserted there was no flow of liquid; but after the instrument was plunged one intercostal space lower, a large quantity of serum escaped, and the immediate relief was very great. The patient recovered very completely, so as to live a few months, but afterwards died from cancerous disease of the mediastinum, and it was into this cancerous mass that the trocar was first plunged. He knew of another similar operation performed by Dr. Haeger of the same city, but had not heard of its ultimate result.

The following cases have been selected from the older records of the Society:

PERICARDITIS CAUSED BY THE PRESENCE OF FALSE TEETH IN THE ŒSOPHAGUS.

Dr. Alonzo Clark, on October 28th, 1857, presented a specimen from a man who was admitted into Bellevue Hospital with delirium tremens, which subsided after a few days, but was followed by incessant vomiting; and although, while delirious, and afterwards when sane, he asserted confidently that he had swallowed two false teeth attached to a gold plate, very little attention was paid to this statement.

Autopsy.—Two false teeth attached to a gold plate were lodged in the œsophagus opposite the base of the heart, and had perforated both the wall of the œsophagus and the pericardium, and excited acute pericarditis, with a large effusion of lymph.

TRAUMATIC PERICARDITIS.

A unique Wound of the Pericardium from the Explosion of a Cartridge.

On October 26th, 1876, **Dr. H. B. Sands** presented the anterior portion of the right lung from the body of the late Dr. Thebaud, whose death was caused by the premature explosion of a cartridge which he was engaged in filling. He had suffered from repeated attacks of pleurisy, precordial pain, and dyspnœa, was suspected to have disease of the heart or aorta, or both; and had been examined by Drs. Leaming, Loomis, and Metcalfe, all of whom had detected a systolic murmur at the base of the heart, and one of them considered it organic; but immediately before the accident he was in better health than usual.

The casualty occurred on the 12th of October, about 9 P.M. at his dining-table, in the second story. Immediately after, he made a desperate effort to reach his bedroom on the floor above, and sank exhausted across the foot of his bed, bleeding from a wound in the chest. Dr. Sands arrived at 9.30 P.M. and saw the patient in consultation with Drs. Briddon, Stimson, Reynolds, and R. W. Taylor. Dr. Thebaud was rallying from a profound and dangerous shock; but was nearly pulseless, and slightly delirious. An oblique incised wound of the chest was discovered an inch in length, running from above downwards, and from without inwards, directly over the fourth intercostal space, and very near the right side of the sternum; and from this there was pretty active hemorrhage, evidently coming from the interior of the chest. As soon as he rallied sufficiently, Dr. Sands introduced the end of his little finger, and after passing it in an inch and a half directly backwards, its progress was arrested by soft tissue, and any further attempt at examination was abandoned. A subsequent exploration made directly afterwards, the bleeding still continuing, revealed a portion of pasteboard cartridge, which was removed and careful visual examination was made of the wound with a view of finding the source of hemorrhage, which was evidently venous and quite free; but the attempt was unsuccessful, and ice compresses at once controlled the bleeding. After this the patient was placed square around in bed, covered up warm and left.

On the following morning he spat blood, which confirmed a previous suspicion that the lung had been wounded. He had passed a bad night, and believed he was suffering from internal hemorrhage. Auscultation and percussion gave negative results. The heart-beat was feeble, but the old murmur was easily recognized. On the afternoon of this day (Friday), his coat was removed, he was propped up in bed, and auscultation was more satisfactorily performed. Abundant crepitant râles were discovered, thought by Dr. Sands to be due to blood from the wounded lung. Opium was administered and continued during his illness, when restlessness, dyspnœa, and pain required it.

On Saturday (the third day) he again expectorated blood, and there were signs of commencing pneumonia. On Sunday, he had delirium, which continued more or less until death, which occurred by syncope.

On Tuesday (17th), some precordial pain which commenced the day previous, increased, and respiration became more labored ; he also had a well-marked exacerbation of fever.

Wednesday (18th), he began to fail markedly, and in the evening approached absolute collapse, which was prevented by the hypodermic injection of brandy and caffeine. From this time he continued gradually to fail, until 3.50 A.M. of Monday, the 20th, when he died.

During his illness the varying pulse ranged from 90 to 120; respiration was subject to great alternations, from 18 to 55 per minute. The temperature on the evening of the accident was 96° F., then it arose to 99° and 101°, remaining so until the last day, when it sank to 97°.

Autopsy.—By Dr. Finnell, during which the pericardium was accidentally opened by a deputy coroner. On raising the sternum, a square piece of the brass cartridge cylinder (1⅝ inches) was found firmly imbedded in the anterior portion of the lung. The right border of this piece of brass was concealed from view, while the left margin presented a sharp angular edge, which penetrated the lung, made *a small perforation into the pericardium*, and lay in direct contact with the left ventricle of the heart.

There was *universal pericarditis*, the diagnosis of which was made during life by Drs. Stimson and Reynolds. Between the parietal exudation and the heart was a quantity of blood, estimated by Dr. Finnell at a pint, which did not come from any large vessel; but Dr. Sands was of the opinion that the greater portion came from the lacerated lung-tissue, and had entered through the wound in the pericardium. The right auricle contained a post-mortem clot. No lesions of the aortic valves were discovered, proving the correctness of Dr. Leaming's diagnosis.

The lungs were universally adherent on both sides ; contracted and the seat of fibrous phthisis.

Dr. Sands discussed the propriety of a more thorough exploration of the chest, and the advisability of any attempt to remove the foreign body. He maintained that the circumstances were such as absolutely to forbid a more complete examination and also any attempt to extract the foreign body. Aside from the condition of extreme shock in which the patient was during the greater part of the time, the existence of organic disease of the lung, and the dangerous proximity of the heart, were of themselves sufficient reasons against operative interference.

DR. LEAMING said : Dr. Theband called with Dr. F. N. Otis, last spring, for an examination of his chest.

There was a systolic murmur at the base of the heart, at the apex, and in the chest-wall over the left side. It was caused by unequal tension of the chordæ tendineæ, due to slight dilatation of the right cavities of the heart from obstruction of the pulmonic circulation by firm interpleural adhesions. Aneurism of the arch of the aorta, stenosis of the mitral valve, and obstruction at the aortic orifice had been diagnosticated, but he did not find them.

A few weeks afterwards, Dr. Thebaud again called with Dr. Reynolds. I made another careful examination, which confirmed my first diagnosis.

The wound evidently was mortal from the first, and the autopsy justifies Dr. Sands' conservative surgery. If the foreign body could have been found, its removal would have further lacerated the lung, renewing and increasing the hemorrhage, and left a ragged opening in the pericardium, which filling with blood would have caused speedy death.

Dr. Briddon thought that the quantity of blood in the pericardium was very much overestimated. He saw only three or four clots, most of the fluid being evidently the product of inflammation, mixed with blood. The condition of the patient, the first time he saw him, was so critical that he did not expect him to live until morning.

Dr. Stimson, who had been in constant attendance, fully indorsed Dr. Sands' views in regard to the inexpediency of any operation. Indeed, the patient was, in his opinion, doomed from the beginning.

Dr. A. C. Post remarked that, if the patient was in condition, and even if the cavity of his chest could be seen as through a glass, any attempt to remove the missile would have been admissible.

Dr. Reynolds stated that, so profound was the shock during the night of the accident, it was not until the following morning that the temperature marked the lowest register—96½° F.

RECOVERY FROM LACERATION OF THE PERICARDIUM AND CONTUSION OF THE HEART.

In 1847, **Dr. Lewis A. Sayre** reported a case of laceration of the pericardium and contusion of heart, from the wadding of a pistol. The skin, muscles, pleura, and pericardium were blown away, and the heart contused. The third and fourth left ribs were exposed, with a space between them more than an inch long, through which the heart could be distinctly seen pulsating. Recovery occurred in three weeks from water-dressing only, and rest in bed. The patient was well four years after, with no sign of disease of the heart; but the external cicatrix was four or five inches in circumference.

SECONDARY PERICARDITIS FOLLOWING SARCOMA OF THE HEART.

Dr. George T. Elliot, on Feb. 13th, 1856, presented a case of the above from H. B., æt. 40, from Ireland, a laborer. He had always been healthy, never had syphilis, nor had he been salivated. Five years before his death he had an attack of acute articular rheumatism lasting three weeks; and four years after commenced to have dyspnœa and paroxysms of dizziness. In six months more, his face and legs became œdematous, his face livid, and the superficial veins of the thorax enlarged. There was, two weeks before death, dulness on percussion over the whole of the sternum, extending two and a half inches to the right of the median line, so that the extent of præcordial dulness was double the normal. Over the præcordial region, and the whole anterior chest, there was a loud, harsh, systolic murmur feebly transmitted to the carotids. Respiration and vocal resonance were natural on the left side, while on the right there was bronchophony with bronchial breathing; both radial pulses were small, but the left larger than the right; the pulse was 96, and regular; no pulsation could be felt behind the clavicles, or in the jugular fossa; there was no change in the symptoms until his death, which occurred suddenly.

Autopsy.—The veins of the scalp, and the venous sinuses of the brain were gorged with blood; each pleural cavity contained six ounces of serum; the left lung was slightly œdematous, but free from adhesions; the right was œdematous, and bound to the chest-wall by old pleuritic adhesions; the *heart* weighed twenty-six ounces, and the pericardium was adherent throughout; the arch of the aorta was dilated, atheromatous, and just above the aortic valves was an aneurismal sac the size of a walnut; the wall of the right ventricle was thickened, and in the anterior and posterior portions of its wall were three firm, fibrous-looking tumors of ovoid shape, one inch in diameter, reaching to the pericardium externally, but separated by a thin layer of muscle from the endocardium; the upper part of the right ventricle was narrowed by the encroachment of these tumors to the diameter of the pulmonary artery; the endocardium of this portion of the ventricle was thickened, and atheromatous; the tumors were found to consist of so-called fibro-plastic or spindle-celled sarcoma; the abdominal viscera were normal.

LATENT PERICARDITIS.

In 1853, DR. ALONZO CLARK exhibited a case of latent pericarditis, in which there were forty-four ounces of bloody serum in the pericardium, and adhesion of one-third of its surface to the heart, in a man dying of alternate pneumonia, pleurisy, and capillary bronchitis. The pericardial trouble had not been discovered during life, as is often the case from its unobtrusive character during acute lung diseases.

In 1851, **Dr. Brown** exhibited a heart with latent pericarditis. There had been no pains or other symptom to draw attention to the heart, but there had been some rheumatism about the hips, and a little pain in the epigastrium. The patient lived a week, and both lymph and serum were found in the pericardium.

SECONDARY PERICARDITIS.

In 1854, **Dr. Alonzo Clark** presented a case of secondary pericarditis from a man with lumbar abscess. There was a perforation into the pleura, but none into the pericardium. Still eight ounces of fluid were found in the pericardium, and lymph over the whole of the heart, and part of the pericardium.

In 1861, **Dr. Alfred L. Loomis** presented a case of secondary pericarditis from a boy with Pott's disease. There had been great debility, followed by pneumonia of the left side; and four days after there was intense præcordial pain, attended by an exocardial murmur over the whole heart. Death occurred on the fourteenth day.

Autopsy.—There were six ounces of serum in the left pleural cavity; the rest of the lung was adherent by recent adhesions: both surfaces of the pericardium were covered with plastic exudation one-half inch thick, with bands of adhesion at various points; some parts of the left lung were in the second stage of pneumonia.

FŒTAL PERICARDITIS.

In 1853, **Dr. Lidell** exhibited a case of pericarditis in a fœtus.

PERICARDITIS IN AN INFANT ELEVEN DAYS OLD.

In 1853, **Dr. Cox** exhibited a case of pericarditis from an infant only eleven days old, which was well till the fourth day, then had a convulsion with labored respiration, lividity of skin, and death on the sixth day.

Autopsy.—The pericardium was filled with serum; the symptoms were like those of patulous foramen ovale and atelectasis.

PERICARDITIS IN CHILDREN.

In 1853, **Dr. Alonzo Clark** exhibited a case of pericarditis in a child æt. 5 years. The heart was large, weighing 7½ ounces; both auriculo-ventricular openings unusually large, and incapable of perfect closure.

In 1847, **Dr. Gustavus A. Sabine** exhibited a case of hemorrhagic pericarditis, from a child æt. 6 years, who had had heart disease for two years, with a severe aggravation three weeks before death. The heart was immense in size; there was also slight thickening of the mitral valves.

On November 12th, 1873, **Dr. Mary Putnam-Jacobi** presented a specimen of pericarditis in a child aged eight years, who two years ago had an attack of chorea which lasted two weeks, but never any well-defined rheumatism. When first seen, on Sept. 21st, a diagnosis could be made very easily. There was a great hypertrophy of the heart with dulness extending from the second to the seventh ribs and to the right of the sternum; and mitral insufficiency was very marked, there being loud blowing murmur at the apex, prolonged at the back. There was also pneumonia of the middle lobe of the right lung.

The child improved somewhat under digitaline and iodide of iron, but a relapse occurred on the 26th of October, evidenced by bronchial respiration on the left side, dyspnœa, and other physical and rational evidences of pneumonia. The temperature ranged from 101° F. to 99° F., remaining at the latter some days previous to death. The patient soon became very much prostrated, but no exocardial murmur could be discovered and the endocardial bruit was the same as before, except during the height of the acute attack, when it was somewhat muffled. The area of former dulness was also somewhat increased.

During the last four days the face became œdematous, the dyspnœa increased, and the child finally died with symptoms of pulmonary œdema.

Autopsy.—The pericardial surface of the left ventricle was adherent throughout and the others were covered with recent lymph. At the posterior surface over the right ventricle there were evidences of hemorrhagic extravasation. The mitral valve was insufficient, one-half being completely destroyed and the other much thickened. The other valves were healthy. The presence of the recent lymph, with the absence of exocardial murmurs, has often been noticed by others in acute secondary attacks of pericarditis.

The pericardial effusion was sanguinolent; both lungs were very œdematous, and the middle lobe of the right, hepatized. Both the kidneys showed decided venous congestion of the pyramids. The liver was markedly fatty.

The points of interest in the case were: First, its rarity in a child—occurring, according to one observer, only once in seven hundred cases, and according to another, once in one hundred and fifty. Secondly, the absence of manifest rheumatism as the cause, the first symptom showing itself being rheumatic chorea. Thirdly, the absence of exocardial murmurs in this secondary acute attack of pericarditis.

Dr. Loomis remarked that the absence of exocardial murmurs in these cases depended more upon the extent and locality of the adhesions than upon its being a second attack. If there were no extensive adhesions on the posterior surface, so that the motions of the heart are not interfered with, exocardial murmurs would be present even in the third attack ; when these murmurs could not be heard anywhere else on account of adhesions, the friction sound could be distinctly made out over that portion of pericardium which covers the aorta. The specimen was a very interesting one in other points of view, especially in reference to the increased size of the heart.

OLD PERICARDITIS WITHOUT HYPERTROPHY OF THE HEART.

In 1868, **Dr. Briddon** presented a specimen of old pericarditis, of interest on account of the thickness and density of the deposit. There were no valvular lesions.

Dr. Flint remarked that the case was an important one as proving that the walls of the heart, which were the subject of pericarditis and adhesion without valvular lesions, became more or less atrophied instead of hypertrophied as generally believed.

EXTENSIVE PERICARDIITS WITH PLEURISY AND PNEUMONIA.

In 1870, **Dr. C. C. Lee** showed a specimen of very extensive pericarditis from a man sixty-eight years of age. He had pneumonia extending over the whole of the right lung, complicated with slight pleurisy, which increased very rapidly; and being extremely exhausted by previous exposure, he quickly sank, and died in twenty-four hours. Death was the result partly of the pneumonic condition, and partly of the weakened condition of the heart.

Autopsy.—The pericardium was not only extensively adherent, but contained twelve ounces of fluid.

Note.—Almost numberless cases of pericarditis have been presented to the Society, a few of which, and those not always the most important, have been selected from the older records, mainly to illustrate all the different varieties of the disease in the most concise manner. Ulcerative endocarditis and adhesions of the pericardium have been entirely omitted, as specimens of them have been presented quite lately, and will appear in the regular order. Pericarditis often occurs in connection with pleurisy and pneumonia and is rarely a simple or purely inflammatory disease. Dr. Latham was the first to notice its frequent connection with rheumatism; and Bright's disease is the next most common cause. Thus, in thirty-seven cases, Dr. Alfred Taylor found rheumatism in twenty, Bright's disease in ten, and some other form of renal disorder in five cases. It is also met with in cases of pyæmia, and occurs, though rarely, among the sequelæ of scarlet fever in children. Congenital affections of the pericardium are very rare, and the frequency of its morbid alterations increases with age, which is in marked contrast to diseases of the endocardium, which are very common during the early years of life.

LIPOMATA.

Dr. J. W. Howe exhibited a lipoma weighing three pounds and twelve ounces, from the scapular region of a female fifty years of age, which had been growing twenty years. The principal part of the wound united by first intention.

RARE CONGENITAL, COMPOSITE, NON-ENCYSTED, HAIRY LIPOMA OF THE MOUTH.

On May 27th, 1874, **Dr. J. Williston Wright**, Candidate, presented a case of the above.

The child, as soon as delivered, made one or two spasmodic respiratory efforts. A finger was introduced into the mouth, to remove any collection of blood or mucus that might be obstructing respiration, but it was suddenly arrested against the roof of the mouth. Attempts at resuscitation failed, and the child was soon dead. Weight, four and a half pounds; body well formed, and apparently at term.

The jaws were closed; and what seemed to be the tip of a normal tongue was slightly protruding between the lips; but on pressing down the chin, a flattened, ovoid body was discovered, the anterior extremity of which was free, while its posterior extremity was adherent to the roof of the mouth.

Viewed from its superior aspect, the growth had all the outward appearances of a portion of the normal tongue, both as to its size and outline, including the perfectly regular and rounded border of its free end.

The points of attachment to the roof of the mouth were as follows:

On its upper surface, to the palatal processes of the superior maxillary bones, at a point about midway between the edges of the alveolar process in front, and the opening of the posterior nares behind; and from this place to the tip of its free extremity the mass measured three-fourths of an inch in length, by the same in width, and one-fourth of an inch in thickness.

Inferiorly, the growth continued backwards, from the spot above named, as far as the basilar process of the occipital bone, at about its junction with the basilar process of the sphenoid, to which its posterior extremity was firmly adherent. It measured on this surface, antero-posteriorly, an inch and three-quarters; and in its passage along the roof of the mouth, blocked up the opening of the posterior nares, so as to leave only a narrow lateral fissure on each side, through which a probe only could be passed from the anterior nares into the pharynx.

Both surfaces of the growth, and especially its rounded free border, were supplied with quite an abundant growth of *soft, downy, white hair,* such as is frequently seen upon the cheeks of newly-born infants.

An inspection of the floor of the mouth revealed the presence of the true tongue, apparently occupying its normal position, and being peculiar only in the appearance of its free extremity, which had a somewhat irregular outline, with thinned edges; and at one point, near the centre of its tip, a small tubercle, as large as a millet-seed, was noticed.

My first impression was that, at some period of intra-uterine life, the tongue had been protruded and compressed between the jaws until the organ had been divided—that the portion thus severed had then fallen back, and by some means attached itself to the roof of the mouth, as already described.

But the subsequent discovery of the presence of *hair* upon the surface of the growth, the recognition of a frenum to the true tongue, and that the little tubercle before mentioned, which had been regarded as the remains of an exuberant granulation, was really a continuation of the frenum itself over on to the dorsum of the organ, led me, very seriously, to doubt the correctness of my earlier conclusion.

Dr. Jacobi, after a careful investigation, was inclined to regard the growth as a dermoid cyst, developed either from some portion of the base of the brain, or from the ethmoid bone, and escaping into the mouth at a period of intrauterine life before a separation had taken place between the cavities of the mouth or nose.

To settle this point, the encaphalon was hardened with alcohol; but nothing unusual was found in any part of the brain, the base of the skull, the ethmoid, sphenoid, or the basilar process of the occipital bones.

The growth must, therefore, have originated at or very near the point at which it was found attached.

It was also situated precisely in the median line, rendering the suggestion of its having descended between any portion of the hard palate and the alveolar arch exceedingly improbable.

Microscopical examination of sections of the mass showed it to consist of an external epithelial layer, containing hair bulbs, with hairs growing out of them, and projecting from the free surfaces; sebaceous glands, and unstriped muscular fibres.

Deeper than this were found connective tissue and well-marked layers of striped muscular fibre, while the centre of the growth was composed of a considerable quantity of fat in well-marked vesicles.

No semblance of a cyst was found, either with the naked eye or the microscope.

As to the possibility of its being a portion of the true tongue, the following facts may be stated :

1st. The close resemblance in size, shape, and general appearance between the tumor and the anterior portion of a normal tongue.

2d. The fact that the growth was covered with material occupying a position midway between skin and mucous membrane, which is also true of the tongue.

3d. The presence of well-marked muscular fibres and a quantity of fat, both of which are normally found in this organ.

4th. The somewhat shortened or atrophied appearance of the true tongue, as though a portion of its anterior extremity had been removed, which would naturally incline us to regard the tumor in the roof of the mouth as the missing portion.

On the other hand, opposed to this theory, we have :

1st. The presence of a large quantity of hair upon the surface of the tumor, an abundance of well-formed hair-follicles, and sebaceous glands in the substance of its outer investment, all of which are entirely foreign to the ordinary structure of the tongue.

2d. The absence of papillæ, such as are found in the mucous membrane of the tongue.

3d. The presence of a frenum to the true tongue, not only in full, normal proportion, but even somewhat in excess.

However, as an offset to the first objection, it has been shown that while the growth of hair from mucous membranes is rare, in the human subject, it has been observed by Henle on the labia minora (Köll, p. 172, *Am. Trans.*, 1854), and among the lower animals it is not so uncommon, being said to exist in the neighborhood of the pylorus in the horse, in about one instance in twenty, and in rare cases to extend from this point nearly throughout the intestinal canal ; and in an article by Walter Hayle Walshe, in Todd's Cyclopædia of Anatomy and Physiology, page 142, Vol. 4, Part 1, we find that "The adventitious production of hair is not so singularly rare ; and though, no doubt, much fantastic matter has been written on their places of attachment, the following localizations may be admitted as real : *the tongue*, the caruncula lachrymalis, the cornea, the internal surface of the gall-bladder, the nymphæ, the vagina (in connection with fat), tumors of the uterus, and of the fauces."

And in a note at bottom of same page, referring to the tongue: "This has been denied hypothetically ; yet nothing is less improbable than the occasional growth of obvious hairs from this organ, seeing that some of the epithelial processes of the conical papillæ actually inclose minute hairs in their natural state."

Finally, as no soft palate or uvula was found in their normal location, it was suggested that the growth represented those structures displaced and hypertrophied.

Upon the whole, however, I was inclined to class this specimen with that of a similar congenital tumor of the roof of the mouth (only much larger than this one), extending up into the cavity of the skull, reported by J. Arnold, of Heidelberg, in Virchow's *Archiv*, Vol. 50 (1870), p. 482, under the heading of "Congenital Composite Lipoma of the Tongue and Pharynx, with Perforation of the Cavity of the Skull."

In that case, as in the one under consideration, the tumor was hairy, and with this difference only, that in the former the hairs were grouped together in tufts, while in the latter they are distributed pretty evenly over the surface.

LIPOMATA IN INFANTS AND CHILDREN.

In 1863, **Dr. Voss** presented a specimen of lipoma from the side of the right tibia of a patient aged but seven months. When the child was only four months old, a small growth on the side of the leg, about the size of a pea, was noticed, and grew rapidly to the size of a small orange; the skin was firmly attached to the tumor. Dr. Voss was inclined strongly to favor the supposition of malignant disease; but on removal, it was found to consist simply of fat. The specimen was interesting, in the first place, on account of its situation, and, in the second, in reference to the age of the patient.

Dr. Voss recollected a similar case which occurred in his own practice, in a boy only a year old, who had a lipoma a little larger than the one presented, but situated on the lumbar region.

On September 27th, 1876, **Dr. Frankel** presented a fatty tumor, the size of a lemon, which he had removed from the middle and outer third of the clavicular region of a child aged four years. The operation was performed by the antiseptic plan, under carbolic acid spray, and the wound healed by first intention. The patient was not more than ordinarily plump, and there were no signs of fatty accumulation in other parts of its body, neither was there any hereditary predisposition to lipoma. The point of interest was in the age of the patient.

LARGE, NON-LOBULATED, AND NON-ENCYSTED MULTIPLE LIPOMA.

In 1858, **Dr. Geo. F. Shrady** presented a series of adipose tumors from a girl aged eighteen. Ten years ago a tumor of the size of a hen's egg appeared on the lower part of the back of her neck, and increased very slowly for eight years, but then grew rapidly. Three years ago, a fulness under her chin was followed by a large pendulous and unsightly mass of fat occupying nearly the whole anterior portion of the neck. Soon after bunches of fat began to appear on each shoulder. About a year ago, the whole of the back began to be the seat of a pretty evenly diffused adipose mass, which extended from just above the buttocks up to the enormous tumor of the neck. She had lived for a long time on vegetable food, abstaining from meat, and her tumors grew very rapidly. The excised tumor, instead of being composed of lobules and a distinct cyst, consisted merely of a hypertrophy of the subcutaneous adipose tissue. Sloughing of the enormous flaps was followed by gradual recovery. The tumor was interesting from its size, weighing five pounds, but also from its peculiar character, being without a cyst or lobules.

NON-LOBULATED LIPOMA WITH FALSE FLUCTUATION.

In 1858, Dr. Detmold presented a *fatty* tumor from the posterior part of the neck which had extended from the occiput down to the scapulæ and forwards to the clavicles, deep under all the muscles. It was exceedingly tense and gave almost unmistakable signs of fluctuation, and hence might be supposed to be a cyst containing fluid, but it was a solid fatty tumor. Certain parts seemed to fluctuate, others did not. It was perfectly smooth externally instead of being lobulated, and the false fluctuation was caused by the extreme tenseness of the parts, and not by the tissues over the tumor.

HARD LIPOMA.

In 1842, Dr. Wm. H. Van Buren presented a very large *fatty* tumor, which had grown from a small lump to its present size in five years. It had extended from the inguinal ring to the top of the coccyx, where it bulged into a large spherical mass. It was soft in places, but hard over the ring; and was not fatty in its hardest portion, but more or less fibrous, and represented a partial degeneration of a lipomatous tumor; or rather an excess of its cellular tissue, which was white and shining, fibrous, and very hard.

ENORMOUS PEDICULATED LIPOMA, WITH MULTIPLE HARD LIPOMATA.

In 1862, Dr. Conant presented an enormous tumor of the side, weighing twenty-five pounds, from a spinster æt. 36; it extended from the median line in front over the crest of the ilium to the spine behind; was attached by a pedicle sixteen inches long and five thick, so as to hang down as low as the knee. It was pear-shaped, and so heavy that she had to lift it over herself when she wished to turn in bed. Strong ligatures were inserted at short distances through the pedicle and tied tight; then the écraseur cut off six segments, one after the other. There was slight hemorrhage, although the cut surface amounted to sixty-four square inches. Recovery was prompt, although the patient was very thin and delicate. There were numerous smaller tumors over the skin apparently of tegumental fibroma, or fibromatous lipoma.

In 1868, **Dr. Howard** presented a unilobular, pendulous fatty tumor, from the posterior fold of the axilla of a lady thirty-five years of age. It was three years in growing, and although it weighed four ounces and a half, its pedicle was smaller than an ordinary lead pencil, and was quite translucent.

1867, **Dr. Finnell** presented a large pendulous fatty tumor, from the inner aspect of the arm of an old lady who had carried it for ten years. It was removed by simply severing a pedicle three inches long and an inch thick.

CALCAREOUS LIPOMATA.

In 1852, **Dr. Alonzo Clark** presented a calcareous lipoma, and remarked that a combination of fatty matter and fibrous structure is not uncommon; also of cancer and fat; but fatty tumors containing calcareous matter are rather rare, while true bony tissue rarely occurs, except in the uterus, and sometimes in the scrotum. Calcification, of course, is far more common than ossification.

In 1853, **Dr. Wm. H. Van Buren** presented a *benign* tumor, which was both fatty and calcareous. It consisted almost entirely of fat, with a calcareous mass in its centre forming nearly one quarter of the growth.

In 1852, **Dr. Thomas C. Finnell** exhibited a fatty tumor containing a calcareous mass, from the lumbar region of a man æt. 40. It was made up of phosphate of lime, which dissolved entirely in acetic acid, and he thought it a rather curious pathological specimen.

COMPOSITE AND DEGENERATE STEATOMATOUS TUMORS.

In 1847, **Drs. Isaacs** and **Van Buren** presented three steatomatous tumors, one containing atheromatous matter like oatmeal gruel, but composed of one-half cholesterine, and one-third epithelium. The second was sebaceous; while the third, situated over the thyroid body, was made up of sebaceous matter, with pus globules, granules of carbonate of lime, and amorphous matter.

ENCYSTED FIBROUS AND FATTY TUMOR OF THE INTESTINES.

In 1858, **Dr. George T. Elliot** exhibited a tumor, which was attached to the intestine, and consisted of a mass of soft, encysted, fibrinous, and fatty matter. It was not adherent to the adjacent tissues, but only to the intestines. It was two inches long, and one and a half inches broad. In his experience such tumors were rare.

ENCYSTED ADIPOSE TUMORS OF THE SMALL INTESTINES.

In 1859, DR. ALONZO CLARK exhibited specimens of *encysted adipose tumors upon the small bowel.* They were partly imbedded in fat, and of the size of a bean. Another was found lying loose in the peritoneal cavity, and the attached one would probably have become loosened in time. There was a cyst about each, and the contents were mainly fatty and oily, which must have been fluid at the temperature of the body. The adipose cells were very apparent; but there was some crystallized fat, like the crystals of stearine, also cholesterine, and triple phosphates. At first it was supposed to be a mass of rolled-up epithelium, formed by friction of the peritonæum; but there was no epithelium present; they were merely encysted fatty tumors, undergoing such changes as is incident to oily matter.

FALSE ADIPOSE NODULES OR TUMORS OF THE PERITONÆUM.

In 1853, DR. ALONZO CLARK exhibited a case in which fibrinous exudation of the peritonæum had been rolled up by the motion and friction of the intestines into small nodules resembling splenic nodules. This was rare, but not previously unknown, and might be mistaken for a fatty tumor.

NOTE.—Many fatty tumors have been exhibited before the Society. They generally consist of normal fat-cells closely packed together, and invested by a rather sparing quantity of common connective tissue. Occasionally, the investment is more developed, and constitutes a kind of thick, fibrous, enveloping cyst; and not less frequently, it dips down and forms cystoid coverings to separate portions of the tumor, which then is lobulated. They are most often single, but not unfrequently multiple. At times they attain an enormous size, being several feet in diameter, weighing from twenty to forty pounds: and in one extreme instance the patient weighed less than one hundred pounds, while the tumor poised two hundred and seventy-five pounds. They are purely local, benign wens, which, however, undergo various changes, malignant degeneration being the most uncommon. They are generally lobulated, more or less globular, and have a peculiar soft, doughy feel, with some degree of elasticity, which in extreme instances may be mistaken for the fluctuation of an oil-cyst, or abscess. At times they become the seat of inflammation, with the formation of pus; or softening may occur from a mucoid change, so that a combination with *myxoma* and myxo-lipoma is not very rare. Two important varieties are the *hard* and and the *soft;* in the former, there is a more abuhdant development of connective tissue; in the other, the fat preponderates over the other elements. Calcification of the fibrous septa is not uncommon; while in rare cases the blood-vessels are greatly increased, forming the so-called lipoma teleangiectodes; and in others pedicles are produced. Their situation is almost co-extensive with that of adipose and connective tissue; but their most common seat is the subcutaneous connective tissue of the buttocks, thighs, back, neck, etc. They generally have broad bases; but when growing beneath the skin, or synovial, mucous, or serous membranes, may assume a polypoid form, with a narrow pedicle; and this pedicle may atrophy and leave the tumors free in the peritonæal or joint cavities. In the knee-joint, especially, fatty growths have been distinguished by Müller as *lipomata arborescentia*, from their branching form. It sometimes happens that a fatty tumor seated in the submucous tissue pushes, as it grows, the yielding membrane before it, and thus acquiring a pedicle, hangs into the intestinal cavity.

EPITHELIOMATA.

EPITHELIOMA OF THE PENIS.

Dr. Joseph Howe presented specimens of epithelioma of the penis, removed by operations from patients aged respectively fifty-four and seventy years.

The first was from the older patient, and was confined to the glans penis. The wound healed promptly, but the patient died subsequently of œdema of the lung.

The second was one of cancer of nearly the entire penis. Amputation of the organ was performed in the usual way, and the wound healed without trouble; but after the patient was able to get about, his urine spattered over the inside of his thighs, and produced extensive excoriations. Dr. Howe then split the urethra in the median line under the pubes, and sewed the edges of the mucous membrane to the corresponding borders of the integument, so that the parts were made to imitate the labia minora in the female, and directed the urine in a continuous and solid stream clear of the thighs.

ACUPRESSURE SAFETY-PINS.

Dr. Howe also called attention to a device which he had used to advantage in controlling the oozing from the severed corpora cavernosa. It consisted of two diaper safety-pins, constructed for this purpose, which were applied to either side of the stump, so as to perform acupressure.

EPITHELIOMA OF THE PENIS—AMPUTATION.

By **Dr. Robt. Abbe**, *Candidate.*—The patient, aged twenty-seven, English, a coachman, and married, presented himself Oct. 20th, 1876, with phymosis, a warty growth beneath the foreskin, and a purulent discharge from under the prepuce. Some years ago he had a sore on the edge of the foreskin, which in healing contracted the preputial orifice, so that the prepuce could not be readily retracted over the glans penis. *Five weeks* ago, had his last connection with a woman; *six days* ago noticed a slight discharge from under the prepuce, and two days after he felt a small lump under the foreskin, at the base of glans penis, near the frenum. There was an old phymosis, due to a contracted preputial orifice, which could be dilated only to the size of a lead pencil, and which had cicatricial marks upon its margin on the left side of the frenum; at the base of the glans penis there could be felt through the skin a small hard growth of the size of a bean, raised, perhaps, a quarter of an inch, and not movable. The under surface of the prepuce could be everted only far enough to see a small ulceration opposing the growth; still a probe passed freely between the prepuce and the wart; but the edge of the latter showed it to be a mulberry-like growth upon the glans.

The *discharge was purulent, poor in quality,* and *offensive.* There is *no clap, or trace of any other sores, neither œdema of the prepuce; nor tenderness of the inguinal glands.*

Thorough washing by syringe, applications of iodoform on cotton, and preputial injections of lead and opium several times daily were followed by some tenderness of the parts; and injections of black wash did not diminish the pain or discharge.

Oct. 31st.—The prepuce was slit up on the dorsum to the corona glandis, immediately turned back, and both the warty excrescences and the opposing ulcer were cauterized with fuming nitric acid.

When the growth was first seen it was firmly attached by a large base to both the glans and prepuce, and the neighboring prepuce was very much thickened.

The wart was next excised by curved scissors, and its base cauterized with acid; and the circumcision was then continued around the glans, and the cut edges united by fifteen or twenty fine sutures.

Old cicatrices had drawn the meatus urinarius down toward the frenum, and there were close strictures, for three-quarters of an inch inward, scarcely admitting a blunt bistoury; all of which were divided.

The wound united by first intention throughout. The patient was not confined to bed, but even drove his coach on *the third day.*

The sloughs from the acid soon separated ; but at the end of two weeks there still remained an ulcerated surface on the mucous membrane, about the frenum ; while a renewed growth of tissue showed itself upon the site of the extirpated wart.

The entire granulating surface was covered with a membranous pellicle, which readily peeled off, and left a granular bottom which bled easily.

The parts were kept scrupulously clean, dry, and dusted with *calomel,* or a mixture of equal parts of *calomel and iodoform ;* and iodide of potash and mercury were *given internally.* Still the wart continued to grow, the gray pellicle reappeared as often as it was removed, and the ulcerated surface did not improve. Black wash, and the frequent application of equal parts of calomel, iodoform, and glycerin were equally ineffective.

Dr. Bangs suspected the mass to be a true Hunterian chancre, with a greatly hypertrophied base, and the spreading ulceration to be due to simple irritation, and advised active mercurialization.

The patient took blue pill and iron for four days, which acted as a laxative ; and he had scarcely begun to come under the effects of the mercury when he indulged in a ten days' "spree," neglecting both his medicine and his penis.

He returned Dec. 11th, when the exuberant wart had spread to the diameter of more than an inch, had overgrown all its boundaries, and was overhanging its base above a quarter of an inch. It was extremely vascular, painless, covered with a pellicle as before, and giving off an offensive discharge.

Mercurials were again given, but the patient became despondent, and neglected to appear for *six weeks ;* when, on Jan. 26th, 1877, he became alarmed, and sought advice once more.

The appearance of the growth was now greatly changed, and showed unmistakably that it was cancerous.

From being *solid* and *rounded on the surface,* it had parted in the centre and become excavated, and was growing *exuberantly* in all directions. It pouted on the sides, incroached on the urethra, and was very irregularly nodulated. Its surface was sloughy and ulcerated, and the discharge very offensive.

The adjacent portion of the penis for three-quarter inches was indurated ; the glands in the groin were slightly hardened, but not at all tender.

Microscopic examination showed the growth to be *cancerous.*

Feb. 2d.—One gland in the left groin had become inflamed within two days, and a spreading of the cancerous infiltration for an inch along the corpus spongiosum beneath the urethra could be felt.

The patient was etherized, the penis was amputated as far back as the peno-scrotal angle; Drs. Weir and Bangs, Messrs. Hall and Markoe assisting.

A long-handled pair of scissors was used to clamp the penis at the arch of the pubis, and the organ was removed by a single stroke of the knife. A dozen carbolized catgut ligatures were used to control hemorrhage,. but the oozing was tedious from the spongy tissue.

The urethra was split up on the under side for three-quarters of an inch and stitched to the skin on either side, while the skin above was brought over to cover the stump.

The convalescence was excellent, though a moderate surgical fever culminated in a chill upon the fifth day, which seemed to be an outbreak of dormant malaria, as he had had a severe attack of intermittent two years before.

Quinine in ten-grain doses quickly restored him to health.

Union by first intention took place in the deeper parts; but the mucous membrane parted from the skin, and healthy granulations quickly filled in the gap, and in cicatrizing, drew the meatus together, so as to almost overcome any gain obtained from slitting up the urethra.

The inflamed inguinal gland subsided immediately after the operation and gave no more trouble.

The patient had no tendency to erections until the fourth night after the operation, when one or two occurred, which were promptly checked by throwing off the bed-clothes, and applying ice-clothes. He was up and around on the *eighth* day, and attended to his duties as a coachman on the *tenth* day.

On *Feb. 20th,* the *eighteenth day.*—Except a minute ulcer at the orifice, the stump was perfectly healed, and the meatus admitted a No. 15 English catheter.

Feb. 24th.—The meatus was dilated, and kept so by No. 15 Eng. He says he has erections of an inch and a half or two inches, with all the pleasurable sensations of coitus, but without emission.

In 1869, DR. J. C. HUTCHISON presented a specimen from a man, aged seventy, who noticed, three months before the operation, an abrasion of the glans penis. This was soon succeeded by a growth involving the contiguous parts. The inguinal glands were enlarged. The penis was amputated at its middle.

The new growth entirely replaced the glans penis, but did not invade the urethra. It consisted of large, flat, epithelial cells, closely packed, and in some places arranged in the masses characteristic of epithelial cancer.

In March, 1877, DR. ROBERT F. WEIR presented, on behalf of a candidate, a specimen of epithelioma of the penis, for which amputation had been performed. In the course of the history, the difficulties in the diagnosis of commencing epithelioma from phagedenic chancroid were mentioned.

Dr. Janeway referred to the case of a policeman who was threatened with dismissal from the force on account of what was supposed to be chancroid of the groin, but which really proved to be epithelioma of that part. The diagnosis was made with the greatest difficulty, and in the course of his study of the case, he had consulted many works on venereal disease, but failed to find any particular reference to distinctive marks which might be present. It seemed to him that syphilographers were inclined to ignore the possibility of mistakes, rather than attempt to explain them. A good excuse for such a course might be that cases of epithelioma, when fully developed, passed into the surgeon's hands, and were entirely lost sight of by the specialist.

Dr. E. Mason thought it almost impossible to draw a distinction in some of these cases, and gave an illustration in point.

Dr. Briddon was of the same opinion, and also referred to a case in which the difficulties were strikingly apparant.

EPITHELIOMA IN A BOY AGED 16 YEARS.

In 1874, **Dr. Willard Parker** presented extensive warty excrescences of the penis removed by excision, from a boy aged 16. The whole of the prepuce and glans were involved, and the disease was extending towards the inguinal glands.

CANCER OF THE PENIS.

In November, 1871, **Dr. A. B. Crosby**, *Candidate*, presented a specimen of diseased penis, amputated in April, 1871.

The patient was a young sailor, twenty years old, whose general health was very good, and in whom no specific disease could be made out. In the autumn of 1870 he noticed a small nodule on the *corona glandis;* hard, craggy, and incompressible, but not painful; it continued to increase until it was excised by a hospital surgeon. The tumor, at the time of the first operation, was the size of a hazelnut. Before cicatrization was completed, the disease reshowed itself, was again removed, followed by a speedy redevelopment of the disorder.

On the first of February, 1871, a more radical operation was performed, in which a large part of the dorsal portion of the *glans penis,* of the *cervix,* and a considerable fraction of the *corpora cavernosa* were removed ; but the disease again recurred.

Early in April Dr. Crosby decided to amputate the penis near the body.

The patient being under the influence of an anæsthetic, the penis was seized by the left hand of the operator, the integument well drawn forward, and a knife carried around the penis near the body, dividing the skin only.

The proximal portion of the skin was now drawn back, and a long acupressure needle pushed through the *corpora cavernosa* from side to side just in front of the *pubes*.

The *penis* was then severed by a single stroke of the catlin anterior to the needle, which entirely prevented the usual retraction of the stump. Four ligatures were applied to bleeding vessels, and although the needle was allowed to remain twenty hours, no hemorrhage occurred. The urethral mucous membrane was drawn forward and divided antero-posteriorly and laterally, and then attached to the skin by a few points of *China bead silk*.

The stump cicatrized completely in six weeks. During the last two weeks there was a manifest enlargement of the *inguinal glands* on the left side, accompanied with tenderness. The patient deserted the hospital about this time, and no further history could be obtained.

Pathology.—The distinguished surgeon who performed the earlier operations in this case inclined to the opinion that the disease was *recurrent fibroid*. In view, however, of the marked tendency of the diseased mass to undergo degenerative changes; to recur, before the wounds had cicatrized; and the appearance at last of disease in the adjacent lymphatic glands, led the writer to fear that the disease was distinctly malignant, although no well-marked cachexia had yet shown itself. Still cancer of the penis is by no means an unknown disease; Mr. Paget has described a case which developed rapidly from a blow, and the writer has seen one unmistakable case of encephaloid of the penis.

NOTE.—Many cases of epithelioma of the penis have been presented to the Society, a few of which are published here. It is that form of cancer which usually attacks the glans penis most frequently, and next the prepuce. It generally appears as a small, flat, warty growth, or simply as an excoriated surface. of which the base is apt to be indurated, especially when it commences at the meatus. The hemorrhages and pains are at first slight, and dark-colored scabs are apt to form. The disease advances at first slowly, and then rapidly by ulceration backwards, and finally may include everything in its course. The inguinal glands may become involved, and the infection spread from the root of the penis over the abdomen, groins, thighs, and perinæum, and finally the anus. Scirrhus generally originates in the body of the penis behind the corona glandis. Phymosis and the irritation attending upon it are said to be exciting causes of epithelioma, and advancing age is a predisposing incident, while direct contagion from a cancerous uterus has been alleged to be present in a few cases.

PERITONITIS.

TRAUMATIC PERITONITIS.

Gunshot Wound of the Transverse Colon—Acute General Peritonitis.

Dr. B. A. Watson, of Jersey City, presented a specimen of gunshot wound of the transverse colon, followed by acute general peritonitis. The points of interest in the case were the almost complete absence of shock, the absence of tympanites for the first four or five days, and the comparatively low temperature during the whole course of the disease.

Peter Murray; an able-bodied man; aged twenty-nine years; received a gunshot wound of the abdomen on November 27th. The ball entered an inch and a half to the left of the median line, and two inches and a half above the umbilicus, passed to the left, fractured the costal cartilage at its junction with the tenth rib, where the integument bulged outward, and the missile was found just beneath the skin. Four hours after the injury, his pulse, respiration, and temperature were nearly normal, his face slightly pallid, and countenance expressive of anxiety; he did not complain of pain, but was ordered morphia. At 4 P.M., the pulse was 108, and the temperature 103° F., although two hours later the thermometer marked 102°. There was some tenderness at the site of the wounds, especially at that made by the removal of the bullet, but no general tenderness of the abdomen, nor was it tympanitic.

Nov. 28th, 9.30 A.M., temperature in the axilla 101°. Forty minims of Magendie's solution of morphia were administered during the night, hypodermically, which was not at all times sufficient to keep him perfectly free from pain. At 4.30 P.M. the temperature was 98.5°. Nov. 24th, 9.30 A.M., temp. 99.1°; 4.30 P.M., temp. 100°. Morphia was now given by the mouth. Nov. 30th, 10 A.M., temp. 99°. Dec. 1st, 9.30 A.M., temp. 101.75°; 6.30 P.M., 100.3°. Dec. 2d, 9.30 A.M., temp. 100.1°; 6.30 P.M., 100.5°. Morphia was now given in large doses for the purpose of controlling pain. Dec. 3d, 9.30 A.M., temp. 100°; during the night vomiting and diarrhœa set in; the eyes were sunken, tongue coated brown, slight tympanites, but not much tenderness on pressure. At 6.30 P.M., temp. 103° F. Dec. 4th, 9.30 A.M., temp. 100.1° F.; 6.30 P.M., temp. 101.5°. Dec. 5th, 9.30 A.M., temp. 99° F.; 6.30 P.M., temp. 103° F.

The patient was very much weaker this evening; the tympanites very great, and the breathing wholly thoracic.

Dec. 6th.—The patient died about 2 A.M.

Autopsy.—Twelve hours after death. Abdominal walls greatly distended with gas, and within the abdominal cavity there were all the indications of acute general peritonitis. The bullet had perforated the left portion of the transverse colon; and surrounding the opening, the gut was in a semi-gangrenous condition. There was about one quart of yellow purulent serum in the abdomen, and the surrounding parts were thoroughly agglutinated together by a gray membranous layer.

OPIUM TREATMENT OF PERITONITIS.

As early as 1850, DR. ALONZO CLARK treated peritonitis with opium to semi-narcotism. In one case, thirty-six grains were given per day, for seven days; in another, seventy grains in two or three days; in a third, twelve grains of morphine in one day; in a fourth case, five hundred grains of opium in fourteen days, followed by recovery. He had cured seven cases in one year.

LATENT PERITONITIS FROM PERFORATION OF THE UMBILICUS, FOLLOWING ERYSIPELAS.

In 1861, DR. SWIFT exhibited a case of *perforation of the peritonæum from erysipelatory inflammation of the umbilical pit,* in a girl æt. 7½ months. For one week before death, she had constipation, persistent nausea, contracted pupils, and great restlessness; then an erysipelatous blush appeared over the umbilical pit, which was much indurated, and a small opening made its appearance, followed by slight hæmorrhage, sinking and death without pain or tenderness or tympanites of abdomen.

Autopsy.—Directly opposite the inflammation on the skin the peritonæum was much reddened and perforated at a point where it is reflected from the abdominal wall upon the bladder. There was one-half ounce of sero-pus in the abdominal cavity, but no widely extended peritonitis. The pus had followed its way down to the point of perforation by means of the umbilical processes. There was no disease of the umbilical vein or artery about the liver. The case seemed to him unique; for he could find no case recorded in which phlegmonous erysipelas had attacked the umbilicus at seven months, and ended in perforation of the peritonæum.

RECOVERY FROM A LARGE WOUND OF THE JEJUNUM.

In 1847, **Dr. Thomas M. Markoe** reported a case of wound of the jejunum, extending nearly longitudinally around two thirds of its calibre. It was stitched, the intestine returned, and the abdominal walls brought together, followed by recovery. The patient died two years after of erysipelas; and no trace of cicatrix could be found in intestine.

IRON BULLET IN THE OMENTUM.

In 1850, **Dr. Henry B. Sands** exhibited a specimen, consisting of an iron bullet in the omentum. It was encysted, and had been there a long time; it was seated two inches from the left border of the great omentum, and two inches below the greater curvature of the stomach. There was a circular scar on the right side of the thorax, a well-marked cicatrix on the pleura between the eighth and ninth ribs, another cicatrix on the pleural surface of the diaphragm, and still another on the abdominal surface, all of the same size, and leading in the same direction; there was also another cicatrix in the right lobe of the liver, which was grooved or furrowed by the projectile. The lung itself was not injured, for the ball had passed between the pleuræ through the diaphragm. There were several inches of lung-tissue below the cicatrix in the costal pleura, so that the lung could scarcely have been drawn up out of the way in expiration, as the lower limit of the right lung in auscultation and percussion is the lower border of the sixth rib anteriorly, and the ninth intercostal space or upper border of the tenth rib behind.

PERITONITIS AFTER TAPPING THE ABDOMEN.

In 1848, **Dr. John A. Swett** reported a case of fatal peritonitis occurring after tapping with a large trocar; the aperture was large, and immediate protrusion of the omentum occurred; death ensued from peritonitis.

In 1848, **Dr. Wm. H. Van Buren** reported a somewhat similar case; but the peritonitis arose from protrusion of the intestines and omentum eighteen months after tapping. The skin had healed over, but the strangulation took place between the abdominal muscles.

LACERATION OF THE INTESTINES WITHOUT PAIN.

In 1847, **Dr. George Wilkes** reported two cases of laceration of the intestines not attended with pain. In one, a man was run through with the pole of a cart, and the ileum was lacerated, yet he had no pain. The other occurred from straining, while attempting to lift an anchor.

SECONDARY PERITONITIS.

In 1871, **Dr. Thomas C. Finnell** exhibited portions of the intestine and fragments of the liver, from a man aged thirty, who had fallen through a hatchway, a distance of thirty feet. He complained of distress across his umbilical region; but in a month he was almost well, when an attack of an acute or pyæmic rheumatism of the wrists set in. Two weeks after he died rather suddenly of peritonitis.

Autopsy.—The peritonæum was the seat of intense inflammation caused by a rupture of one of the intestines and the escape of its contents. There were also extensive adhesions of the intestines to each other, and considerable pus in the peritonæal cavity. The point of interest was the rupture of **adhesions formed after the accident.**

Dr. Janeway had seen cysts which had first formed a protection and limitation to peritonitis, which, after a time, ruptured, causing a secondary attack which proved fatal.

STAB WOUNDS OF THE PERITONÆUM.

In 1870, **Dr. Augustus G. Elliot** reported two knife-wounds of the abdomen, in a child aged nineteen months. One was five, the other seven inches long; one cut down to the peritonæum, the other through it, followed by recovery.

In 1869, **Dr. Finnell** exhibited a portion of the ileum that had been the seat of a stab-wound, from a man aged thirty; it had been inflicted with a butcher-knife, the blade of which entered the abdomen a little below and to the right of the umbilicus. After wounding the ileum, the weapon must have been turned flatwise, as it had afterwards passed upwards between the abdominal muscles a distance of seven inches. The patient had been seen by a medical man very soon after; the wound was brought together with sutures, and the protruding portion carefully returned; but death took place soon after from peritonitis.

Autopsy.—The inflammation was found to have extended from the neighborhood of the wound as a focus. No abscesses were discovered in the vicinity, neither was any hemorrhage noticed in the peritonæl cavity. The wound of the bowel had, to all intents and purposes, completely closed.

Dr. Sayre thought that the inflammation might have been excited by a portion of the suture, nearly three inches in length, which, instead of being cut off close, had been left to dangle in the peritonæal cavity.

In 1861, **Dr. Hutchison** presented a specimen, consisting of a wound of the abdominal wall, and a portion of strangulated, unreduced omentum.

Jas. Henry, æt. 24, on May 27th, 1861, had received three stabs from a knife, one in the abdomen, one on the forehead, and one through fleshy part of arm. There was constant vomiting, great jactitation, and a frequent and feeble pulse. The wounds in the abdomen had been closed by a single suture, by a medical man who saw him soon after the injury, who also returned something into the belly. The abdomen soon became distended and tender, the prostration increased, the vomiting persisted, and he died in forty hours.

Post-mortem.—The abdominal wound was two inches in length, and four inches to the left of the umbilicus, and five and a half inches below the left nipple; its direction was downwards, inwards, and backwards, towards the abdominal cavity, glancing over the tenth rib; a portion of the omentum was lying in a pocket between the internal, oblique, and transversalis muscles, and had not been returned into the abdomen. There was a wound in it one-third of an inch in length, and it was in a state of inflammation; the abdomen contained some bloody serum and abundant deposits of lymph, the result of extensive peritonitis.

The case offered two points of interest: *first,* it illustrated the importance of exercising great care in returning a protruded omentum or intestine that it be not pushed between the tissues forming the abdominal wall instead of into the cavity; *second,* a medico-legal question might arise in such a case, whether the peritonitis which caused death was produced by the strangulation of the omentum in the wound, and hence chargeable to the surgeon, or by the injury *per se.*

Dr. Markoe remarked that the case was a very important one, as a type of an accident which often presented itself to those connected with large hospitals. A wound is received in the abdominal walls, a portion of intestine or omentum protrudes, and a surgeon is sent for, who thinks he reduces the whole, and closes up the wound. Two or three days after, the patient is sent to a hospital in a moribund condition, with the strangulated portion in a pouch between the skin and muscles, or, as in Dr. Hutchison's case, the pouch is found between the abdominal muscles. In the first place, there is want of care in being sure that the protruding parts are fairly reduced into the abdominal cavity, and secondly, omission to bring together the deeper parts of the wound by strong deep sutures. The neglect of these cardinal principles of treatment was so common that it was the rule of practice in the New York Hospital to open all wounds of this nature, in order to determine whether or not a pouch had been formed in the attempt to return the tumor.

Note on Peritonitis.—Idiopathic, acute, diffuse peritonitis is a far more rare disorder than acute diffuse pleurisy, perhaps because the pleuræ are exposed to cold, both externally and through the air-passages. The cavity of the abdomen is also naturally far warmer than that of the pleuræ, from its greater supply of blood. In Vol. II. of the Transactions, pages 8 to 11, there is a report on peritonitis, and another on page 212. Peritonitis from intussusception is treated of on pages 91 to 94; from perforation of the cæcum on page 15; latent peritonitis is dealt with on pages 22, 26, 30, 32, 35, 36, 39, 44, and 75; its slow development after perforation on pages 33 and 37; tubercular peritonitis on pages 131 and 212; and the connection between it and erysipelas on page 212. In Vol. III., page 24, peritonitis from cancer is referred to; and latent peritonitis on page 221.

STATED MEETING, JANUARY 26TH, 1881.

DR. THOMAS E. SATTERTHWAITE, *President, in the Chair.*
WESLEY M. CARPENTER, M.D., *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Ulcerative endocarditis. By DR. WILLIAM OSLER, of Montreal, Canada.
2. Abscess of the left frontal lobe of the cerebrum. By DR. EDWARD C. SEGUIN.
3. Traumatic rupture of the kidney. By DR. HENRY N. HEINEMANN.
4. Diverticulum of the small intestines, showing the lesions of typhoid fever..........By DR. HENRY N. HEINEMANN.
5. A cavity of the lung communicating with a branch of the pulmonary artery and a bronchiole..By DR. G. L. PEABODY.
6. Osteoma of the frontal sinus.......By DR. HERMAN KNAPP.
7. Hypertrophy of the heart without valvular lesion, but associated with renal disease..........By DR. G. L. PEABODY.

ULCERATIVE ENDOCARDITIS.

DR. WILLIAM OSLER, of Montreal, Canada, by invitation, read a paper, illustrated by microscopic specimens. He distinguished three classes of cases which were clinically known as ulcerative endocarditis:

First.—Those in which it appeared without any obvious cause, either spontaneously or in connection with rheumatism or other affection, and to which the term *infectious* was given by Jaccoud. It was the arterial pyemia of Wilks, and the primary ulcerative endocarditis of others.

Second.—Those in which the endocardial disease was secondary to some inflammatory focus, acute necrosis, puerperal endometritis, etc. To these the term *septic* might be appropriately applied.

Third.—In certain cases of chronic valvular disease an acute endocardial process was engrafted (recurrent endocarditis), presenting anatomical appearances similar to the infectious form, but not characterized by the same clinical manifestations, as the patients died with the symptoms of chronic heart disease.

The chief points brought out by what he had observed were: 1, that the majority of cases of infectious endocarditis occurred independently of rheumatism; 2, the frequency with which they were associated with pneumonia; 3, the production of acute multiple aneurisms of the aorta; and 4, certain histological features in the endocardial vegetations, and particularly a remarkable fungoid growth met with in one instance.

He had also noticed that the minute bodies found in the endocardial vegetations corresponded in their chemical and microscopical relations to micrococci. They were motionless, highly refractile spherules, less than a micromillimetre in diameter, arranged in groups or colonies without any perceptible stroma. Acids, alkalies, ether, and chloroform had no effect upon them.

The question of the relation of micrococci to diseases presented many difficulties, and we were not yet in a position to give a final answer to the problem. The occurrence of fatal septic cases, closely allied to or identical with those in which a bacteric endocarditis was found, but in which no micrococci could be detected either in the local process or in the blood, taught us that practically the same poison might exist without the intervention of of bacteria. In any event their presence might be only a partial phenomenon, not a general infective process.

On motion of Dr. ALONZO CLARK, a vote of thanks was tendered to Dr. Osler for his communication, and he then remarked that in some respects he agreed with Dr. Osler: the chief difficulty which presented itself to his mind was, that the micro-organisms were supposed to enter the circulation from without; and the question was, could such minute bodies possess sufficient inherent force to overcome blood-pressure and enter the vessels? Of course, formed particles within the vascular channels might easily get out; but he doubted whether the opposite was known to take place. Moreover, most recorded cases of this variety of endocarditis involved exclusively or mainly the left heart. Why should this be? If the micrococci entered the veins of the body, they ought to be found in the right heart as often as, or even more frequently than, in the left. Again, it must be asked, had such germs intrinsic septic power, or were they merely carriers of the poison?

He pointed out that, in the rare cases involving the right heart, abscess of the lung had been observed. The experiments of Virchow with the injection of indifferent solid particles had resulted in the production of pulmonary stasis or embolism, but special inflammatory symptoms or metastatic abscesses had not occurred. Then it was well known that, in several instances in which minute organisms had been supposed to cause mischief in the body, they had been collected and made to multiply by cultivation. Had the doctor taken any steps in this direction?

DR. OSLER answered that his experiments in cultivation had invariably produced negative results.

DR. CLARK resumed that, in view of this fact, the questionable collections might be held to represent some form of fibrin merely. Incrusted tubercle also might appear minutely granular. He had subjected old tubercular deposits to the action of chemicals, and had found that while some would yield to ether or dissolve in dilute acids producing effervescence, others would resist even the action of strong acids. He questioned whether boiling and the influence of such reagents would not destroy all granular collections of a vegetable nature.

DR. OSLER said that the difficulty suggested by Dr. Clark had also occurred to him. These bodies resisted reagents almost too sturdily to be classed with vegetable products, since other vegetations did not show a similar pertinacity. Nor did he wish to commit himself by positive assertions. His position was one of neutrality. It was further evident that these germs did not alone produce the characteristic features of the disease, because the symptoms had been observed without micro-organisms. A case in point was described. All such observations militated against the idea that these particles were the real *materies morbi*, and favored the notion that they were merely concomitants of disease. Klebs and his followers thought the germs entered the system through the intestinal or respiratory surface.

DR. SATTERTHWAITE asked how these collections behaved when the specimens containing them were stained with hæmatoxylin.

DR. OSLER answered that they took the tint after the manner of all such germs.

DR. HOWE thought that it was hardly fair to class cases involving double fractures or other extensive injuries, followed perhaps by osteomyelitis, under the head of infectious endocarditis. The same objection also applied to cases in which meningitis of traumatic origin, or surgical pneumonias, were present, as in the second group mentioned by the doctor.

DR. OSLER replied that he wished to be understood as limiting the term infectious endocarditis to those cases in which the disease manifested itself without obvious cause. The instances alluded to by Dr. Howe would come under the head of ulcerative endocarditis following injury. As regarded the case in which meningitis was found, this was ascertained to be of non-traumatic origin, being a pia-arachnitis such as occurred idiopathically. Allusion was here made to a case of similar nature, seen in conjunction with Dr. Peabody, at the New York Hospital.

DR. PEABODY stated that in the case just referred to there was no cranial fracture to account for the development of the meningitis. The post-mortem examination, however, revealed the presence of septic particles within the blood-vessels, especially those of the lungs, where colonies of micrococci were found.

DR. HEINEMANN observed that the granular masses would become stained when submitted to the influence of proper reagents.

Dr. Satterthwaite asked whether the infectious form of endocarditis was not identical with the diphtheritic endocarditis of German writers.

Dr. Osler replied in the affirmative, adding that the affection had received various names, and was also known in German literature as mycosis endocardii.

Dr. Satterthwaite remarked that the term diphtheritic, as applied to this form of endocarditis, was an unfortunate one, because the disease rarely appeared in conjunction with diphtheria. He agreed with Dr. Osler with regard to the nature of the bacteritic organisms, for he too was unable to see in them the cause of disease. Many such deposits unquestionably had a post-mortem origin, and even after death they might get into the vessels, fill the tubes of the kidney, etc. With reference to Dr. Osler's specimens, he was of the opinion that they showed true micrococci, such as he had seen in preparations sent here by Prof. Eberth. But that was no reason why these bodies could not have entered the tissues after death. In the recent experiments made by Wood and Formad (see *National Board of Health Bull.*, Suppl. No. 7), abundant low organisms had been found a few minutes after death, in animals which during life were entirely free from bacteria. Nevertheless, such bodies might also be present during life in certain cases. Klebs had in a measure retraced his steps in reference to germ theories. He had found that cross-sections through the minute rods produced the appearance of spherules; hence the latter had been oftener seen than the former.

Note.—Several cases of ulcerative endocarditis have lately been presented to the Society by Drs. Peabody and Beverley R. Robinson. In Dr. Robinson's case the rigors and chills were so frequent as to suggest the idea of malarial rather than pyæmic, detritic, or septic poisoning, but at the post-mortem examination old disease of the valves was found, accompanied with new ulceration, and the transport of emboli to various organs.

ABSCESSES, ETC., OF THE BRAIN.

ABSCESS OF THE LEFT FRONTAL LOBE OF THE CEREBRUM, FROM NECROSIS OF THE ORBITAL PLATE OF THE FRONTAL BONE.

Dr. E. C. Seguin presented a specimen of the above, which was interesting in its pathogenesis and localization.

On April 11th, 1880, he was asked to see a young married woman, aged twenty-eight years, who had formerly enjoyed good health and had borne several children. During February one of her children had died after a severe illness, and she had undergone considerable fatigue, and seemed depressed, weak, and anæmic.

About four weeks before, she complained of pain over the left eye, soon accompanied by exophthalmus, and on March 24th Dr. Knapp diagnosticated orbital (sub-periosteal) abscess, which was opened on March 26th. The pus was under great tension, and spurted out a considerable distance; the pain ceased at once, the exophthalmus disappeared, and the wound quickly healed.

During the first part of April all seemed going on well, as the patient was free from pain; was taking tonics, and on the 3d made a call on a neighbor.

During the night of April 3d, one week before my examination, she awoke with severe headache and vomiting, and ever since had lain abed, presenting the following symptoms: headache, chiefly mastoid and through the base of the skull; occasional vomiting; irregular respiration; irregular and very slow pulse, varying from sixty to fifty beats per minute; stupor and general feebleness. As negative points there were no symptoms about the eyes, objective or subjective, except a partial ptosis of the left upper lid (which had been incised); no fever, chills, convulsions, paralysis, or aphasia; at no time had there been coma. The urine was free from albumen.

She was soporose, but could be roused by loud speaking, when she answered questions as if half asleep, but in such a way as to leave no doubt as to the preservation of language. She put up both hands to the mastoid regions when indicating the seat of pain. Minute inspection showed no paralysis except about the left eye, whose upper lid drooped and whose internal rectus was inert. The left pupil was not fully dilated, but was a little wider than the right. The optic nerves appeared somewhat congested, and were dim at their periphery, but there was no actual choking. She appeared to feel pinching well everywhere. The thermometer showed no fever. The pulse varied from fifty-three to sixty-six beats per minute, and was reluctant, delusively full, with no real strength. The breathing was easy and regular, but friends of the patient described, quite well, a Cheyne-Stokes' breathing which they had observed. There was no redness or tenderness about the site of the orbital abscess.

I diagnosticated an abscess of the brain probably in the left frontal lobe, expressed the opinion that she was in imminent danger, and she died the next day in a comatose state; no new symptom having been observed.

It was then learned that for two years Mrs. F. had suffered from frequent attacks of headache, lasting several hours. The pain was frontal, and sometimes extended along the nose and into the left temple; but there had been no chronic nasal catarrh.

Autopsy.—Made on April 13th, thirty hours *post mortem.* We found a large abscess of the size of an English walnut in the left frontal lobe, wholly under the cortex cerebri, in the convolutions of the orbital lobule and in the second frontal convolution. Viewing the hemisphere from the side, the apparent posterior limit of the abscess was the anterior border of the lower part of the third frontal gyrus. The external connections and origin of the abscess were most interesting: there was only one point of adherence between the diseased frontal lobe and the dura mater, and that was over the orbital plate of the frontal bone, immediately under the swollen frontal lobe, where the dura mater was thickened and adherent to the pia mater and cortex cerebri, forming the inferior wall of the abscess, over a space as large as a ten-cent piece (about 15 mm.) Under this patch of pachymeningitis the orbital plate of the frontal bone was *necrosed* and perforated, and a probe was easily passed into the orbit.

In the orbit, under its periosteum, pus was found, and a part of the roof and the inner wall of the orbit were carious. Careful dissection by Dr. H. Knapp showed disease of a similar kind in the ethmoid cells and frontal sinus. I need say nothing more of the conditions of these parts and of the pathology of the orbital abscess, as the case has been fully reported by Dr. Knapp.

The appearance of the necrosed orbital plate, and of the thickened, adherent dura mater, was precisely similar to what I have several times seen in cases of suppurative disease of the internal ear, with cerebral abscess by contiguity: and the genesis of the abscess must have been alike in the two situations.

In December, the brain having been hardened in bichromate of potash, I imbedded it in Gudden's microtome, and made several horizontal sections through the whole brain with the view of demonstrating the relations of the abscess. The cuts show that the abscess was of quite as large a size as at first supposed, almost perfectly globular in shape, measuring about 38 mm. in diameter. It contained ordinary pus, and was lined by a distinct membrane 1 to 2 mm. thick. The anterior, inferior, and external limits of the abscess were thinned cortex and pia mater; superiorly, posteriorly, and internally, it was bounded by apparently normal white substance. The whole of the white centre of the frontal lobe, except a portion near the convexity of the hemisphere, was destroyed to within 10 mm. of the folds of the island of Reil, and about 8 mm. of the head of the nucleus caudatus. The mass of white substance connecting the posterior part of the third frontal convolution, and the anterior gyri of the island of Reil, with the internal capsule, *were uninjured.*

This last fact is of capital importance in estimating the bearing of this case upon the current notions of cerebral localization.

The above description of the topography of the lesion, especially its posterior limitation, is made from the surface exposed by the lowest cut, viz., one passing through the speech-centre of Broca, about 10 mm. above the apparent commencement of the fissure of Sylvius (pia still adherent). The rest of the brain was healthy to the naked eye.

This remarkable case is of much importance as a negative contribution to cerebral localization. It is in exact accord with recent experimental data, and with the *post-mortem* finding of the last ten years, that an abscess placed like this one should give rise to no motor symptoms, and should not cause aphasia. It is wholly within what are now called the unexcitable districts of the brain. The only symptoms present were the partial paralysis of the left third nerve (more immediately caused by the orbital abscess?) and signs of intracranial pressure. Yet it is important to note that in spite of the enormous pressure which must have existed, there was no actual neuro-retinitis.

I have elsewhere reported another case of a smaller abscess in precisely the same location (left frontal lobe), in which no symptoms referable to this lesion were present.*

"On the other hand, numerous autopsies are on record in which a smaller lesion (softening, hemorrhage, etc.) located only a centimetre further back in the left frontal lobe, but involving the posterior part of the third frontal gyrus or the band of white substance between it and the nucleus caudatus, has given rise to severe symptoms, hemiplegia, or aphasia, singly or combined."

DR. RIPLEY thought, as a general rule, slowly progressive invasion was less likely to produce symptoms than one more rapid.

DR. SEGUIN observed that this would largely depend upon the seat of the lesion. If the central region were involved, gradual invasion would certainly produce early symptoms.

DR. KNAPP stated, with regard to the pus in the orbit and frontal sinus, that abscesses of the latter region were but little known; nevertheless, the frontal sinus not infrequently became the seat of retention-cysts, owing to its communication with the ethmoid cells, or from the presence of polypi. But, as a rule, in such cases, the abscess pointed at the inner aspect of the orbit; yet in the present instance it had pointed externally, and this had misled many who saw the case into an erroneous diagnosis. Such purulent collections might also simulate periostitis. In the present case there was an extension of the orbital plate, forming an outward prolongation, and hence the abscess had formed at the outer part, and not as usual at the inner upper angle of the orbit. Primarily there had evidently been a retention of pus in the frontal sinus; subsequently extensive caries was developed.

DR. SEGUIN remarked that this case had again suggested to him the propriety of surgical interference in similar instances, especially if the existing conditions clearly pointed out the location of the abscess; for it was to be remembered that the frontal lobes bore injuries well, being essentially inexcitable. He thought the life of this woman, who otherwise enjoyed perfect health, might have been saved by trephining, followed by evacuation of the pus.

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* A Contribution to the Study of Localized Cerebral Lesions. Transactions of the American Neurological Association, Vol. II., pp. 122-124, New York. 1877.

DR. KNAPP stated that he, for one, would be willing to practise incision from the orbit in cases so clearly marked as the present one; and added that the orbit might be opened without incurring serious risks.

DR. SEGUIN asked whether that would be as desirable a locality as the frontal region.

DR. KNAPP answered that it would be, if anything, better, on account of its being at a lower level, which would facilitate drainage.

DR. SATTERTHWAITE asked whether he would not prefer drainage through the frontal sinus?

DR. KNAPP replied in the negative.

DR. HEINEMANN alluded to Prof. Detmold's case, which was one of the first on record of trephining for cerebral abscess. See Vol. I., p. 11 of the Transactions.

DR. HOWE remembered several cases, in one of which the patient had recovered after the operation.

DR. SATTERTHWAITE instanced a case he had seen at the New York Hopital, but which had terminated fatally.

In Vol. I. of the Transactions, pages 1 to 32, twenty-eight cases of abscess of the brain are reported. This case, like all the others, proves that cerebral abscess does not occur spontaneously, but is always secondary to disease of the cranial bones, due to injury or disease; or else is dependent upon suppuration in some other part. In short, it may safely be stated that no non-traumatic cerebral abscess will ever be found where careful search has not at last discovered the presence of primary suppuration in some other part of the body.

In November, 1871, Dr. Charles K. Briddon reported a case of carcinoma of the dura mater, in which the third left frontal lobe was involved, without aphasia. In November, 1872, Dr. Alfred L. Loomis reported a case of infarction of the whole island of Reil without aphasia. And Dr. Robert F. Weir reported a case of compound fracture of the skull followed by a cerebral abscess involving not only the third left frontal convolution, but all the parts in the immediate neighborhood, not only without aphasia, but the patient could talk perfectly well.

SUPPOSED ABSCESS OF THE BRAIN.

In June, 1880, DR. DONALD MUHLENBERG CAMMAN, *Candidate*, exhibited a case of acute suppurative inflammation of the ventricles of the brain, with very great dilatation of one lateral ventricle.

A married woman, aged 37, was seen on May 25th, 1880, and supposed that she had had an abortion five weeks before. She then had severe chills daily for five days; remained free from rigors for four weeks, when they recurred for three successive days. During the whole of this time she had a clotted bloody discharge from the vagina. She had had a great deal of domestic trouble, and on May 25th had headache, became drowsy and stupid, but could answer questions. The os uteri was patulous, but the uterus was not sensitive to pressure. On June 2d, she was still in a semi-stupor, lay with her mouth wide open, and moaned a great deal, but could answer questions when spoken to quite sharply. There was no hepatic or splenic enlargement. On June 4th, she had another chill and vomited, followed by a return of the uterine hemorrhage. On June 7th, she had ptosis of the right eye, and the pains in the head were quite distressing; but the pupils were symmetrical and reacted normally. She again vomited several times. On June 10th, she had three convulsions, each lasting several minutes. The pulse was 116 and regular; the respirations 48 and irregular; the ptosis was still more marked, the pupils normal, and tongue dry; she had no localized or general paresis, was perfectly conscious after the convulsions, could answer questions, but had diplopia and again vomited. June 12th, pulse 104 and regular; respirations easy but varying from 22 to 32; severe pain in the back of the head, occasional vomiting; the diplopia persisted, but the ptosis had diminished. On June 16th, she had a severe chill, followed by vomiting, threw her arms about wildly, and the left leg was spasmodically jerked up and down. On June 17th, the diplopia had disappeared, but the right pupil was somewhat dilated. On June 18th, she had no pain, the pupils were normal, and she looked and felt well. On June 22d, she had another chill, followed by constant headache, and vomited frequently. On August 7th, incontinence of urine set in, and during the next month she sometimes vomited all her food for three or four days in succession. By September 15th she began to fail rapidly, had subsultus, and often uttered the sharp, prolonged cry common in meningitis. As early as July, neuro-retinitis had been discovered, and a diagnosis of abscess of the brain had been made.

Autopsy.—September 17th; there were six subperitoneal fibroids on the external surface of the uterus, varying from the size of a pea to that of a cherry; and one internally attached to the fundus uteri of the size of a horse chestnut and pedunculated.

Brain.—The dura mater was congested, and the pia mater opaque along the sulci of the frontal convolutions. There was a considerable excess of cerebro-spinal fluid at the base of the brain, and the brain itself was water-logged. The cerebral arteries were healthy and unobstructed, and there was no tubercular deposit anywhere. Fluid escaped through the transverse fissure. The foramen of Monro was enlarged so as to admit a No. 10 English catheter. The ventricles of the brain were filled with a clear serous fluid; but on the descending cornu of the right lateral ventricle there were a few drops of pus, and a small deposit of non-adherent cheesy matter. But the right ventricle was greatly dilated, being six inches long, while the left was only four. There was also considerable superficial congestion of the posterior halves of both lateral ventricles.

The case was interesting, for at first it seemed as if an abortion and its consequences had been followed by embolus of the brain. The ptosis was not continuous, but varied with the position of the head of the patient. The neuro-retinitis was not diagnostic of abscess of the brain, but of suppurative inflammation of one ventricle. The temperature curve on the chill days, varying from 99° to 103°, was the same as is met with in cases of abscess of the brain. *Lastly.*—There was marked *dilatation of one lateral ventricle*, which is very rare. In looking over the Reports of the Pathological Societies of London, New York, and Philadelphia, no case was found in which there was similar dilatation of one ventricle; but in the article on tubercular meningitis in Ziemssen's Cyclopædia of Medicine we read: "Occasionally one ventricle is said to have been much more dilated than the others; when we have ourselves met with this appearance, we have attributed it to an error of observation due to bad methods of examination."

NOTE.—Acute inflammation of the ventricles is rarely found except in general meningitis, but Dr. F. Delafield has described one case of general idiopathic inflammation of the lining of the ventricles. In inflammation of the pia mater at the base of the brain. turbid and purulent serum is often found in the ventricles. In rare cases, the effusion is confined to one lateral ventricle, or to the third ventricle, or even to a cornu of one lateral ventricle.

RUPTURE OF THE KIDNEY FOLLOWING INJURY.

DR. HEINEMANN showed a specimen of ruptured kidney, in which the organ was almost completely severed, being held together only by a bridge of connective tissue at the renal pelvis. The specimen was removed from the body of a man who had sustained a fall from a height of fifteen feet, thus receiving a sternal fracture and the above renal injury.

Dr. Peabody had seen several cases of this kind, but in no instance had the rupture been so complete.

Note.—Fractures of the kidney generally run in a direction vertical to the surface, in the course of the radiating pyramidal structure; hence there is often little bleeding, since the large arteries run in the same direction and are separated, but not torn across. The urine, too, scarcely escapes, at least not in sufficient quantity to set up inflammation. Sometimes, however, the kidney is broken across and its pelvis and ureter torn, when there may be a rupture of a vein, and much blood will pass down the ureter, perhaps coagulating within it, and forming moulds of its cavity, which escape in the urine, the presence of which enabled Mr. Wilton to diagnose the accident in at least one case. Slight lacerations of the kidney may heal, especially when the peritonæum has not been injured.

RUPTURE OF THE GALL-BLADDER FROM A FALL.

On October 7th, 1874, **Dr. E. G. Janeway** exhibited a specimen of rupture of the gall-bladder from a patient who had received an injury from a fall from a mast, striking the deck flatwise. He soon after showed signs of peritonitis, from which he died at the end of a very few days.

Autopsy.—There was a transverse fracture of the sternum at its point of junction with the third costal cartilage, with bloody effusion in the anterior mediastinum, and in the pericardium. In the abdomen there was serous effusion with fibrinous flocculi, and also in the pelvic cavity. The effusion was more or less bile-stained in the pelvis and in the neighborhood of the liver. In the folds of the mesentery there was a good deal of bile, as was also the case all along the ascending colon around and in the fat capsules of the kidney. The peritonæum around the gall-bladder was uninjured, the rupture in the viscus being through the mucous membrane only, thus allowing the infiltration of bile to take place underneath the peritonæum, and in the manner already described. The gall-bladder itself was distended with bile *and adherent to the transverse colon*, at which point there was a small amount of suppuration. It appeared to be evident that the old firm adhesion of the gall-bladder to the colon, together with the distended condition of the organ, were the principal reasons why rupture had occurred.

DIVERTICULUM OF THE SMALL INTESTINE SHOWING TYPHOID FEVER LESIONS.

Dr. Heinemann presented a specimen from a patient who had died of typhoid fever. In the small intestine a diverticulum was found, which was the seat of the characteristic ulcers of typhoid fever.

Dr. **Peabody**, about two years ago, had found a similar diverticulum. The peculiar feature of his case was that there had been an attempt at formation of a special mesentery for the pouch. In this way a bridle was developed, and the man died of intestinal obstruction due to this cause.

Dr. **Howe** had recently seen an intestinal diverticulum three inches long, in a case of strangulated hernia, at the St. Francis Hospital.

Note.—In 1867, Dr. Alfred L. Loomis presented an unique case of diverticulum of the colon (see Vol. 2, p. 147). The persistence of the fœtal vitelline duct, which originally passes through the fœtal umbilicus to join the umbilical vesicle, gives rise to a diverticulum from the ileum, which generally juts from the lower end of the ileum, about two or three feet or more above the cæcum, and nearly always on the free border of the bowel. They vary in length from one-half to six inches long, like the cæcal tubes in birds. Their structure is exactly like that of the ileum, being composed of all three coats: while the cavity may be equal to or greater or less than that of the bowel. When the extremity of the diverticulum still remains attached to the umbilicus by a fibrous cord, this may give rise to strangulation of a loop of intestine and fatal obstruction. Dr. Galton, like Dr. Heinemann, found typhoid ulcers in one case, and Dr. Lionel Beale saw perforation in another from the lodgment of cherry pits.

A CAVITY OF THE LUNG COMMUNICATING WITH A BRANCH OF THE PULMONARY ARTERY AND A BRONCHIOLE.

Dr. **Peabody** presented the right lung of a patient who died from hæmoptysis. He was twenty-six years of age, and had complained of dyspnœa, with cough and occasional bloody expectoration. An examination of his chest revealed subcrepitant râles, but no marked dulness. Slight bronchial breathing was heard over the base of the right lung. Profuse hemorrhage suddenly came on, the blood gushed into the trachea, and the man died.

Autopsy.—In addition to widespread bronchitis and peribronchitis, a cavity was found in the lower lobe of the right lung, about the size of a hen's egg, and leading into it there was a rather large branch of the pulmonary artery and a bronchial tube. The mouth of the vessel was closed by a recent clot.

NOTE.—Pulmonary cavities are frequently traversed by bands of lung tissue, which often contain branches of the pulmonary artery, the walls of which are always thickened and infiltrated with tubercular products, and the channels of which are generally obliterated. Less frequently the vessels remain pervious and become enlarged into aneurismal dilatations, from which fatal hemorrhage sometimes occurs. The bronchioles are subjected to the same destructive agency, but the power of resistance of the stronger walls of the bronchi of the first and second order are usually too great to be overcome by the morbid process.

OSTEOMA OF THE FRONTAL SINUS.

DR. KNAPP presented a specimen of the above, and gave the history of the patient from whom it had been successfully removed. The case has been fully reported elsewhere.

Dr. Knapp also briefly referred to another case, in which surgical interference had resulted in death. In this instance the tumor extended into the cranial cavity.

DR. SEGUIN remarked that this case went to support his position with regard to the inexcitability of the frontal lobes, for in Dr. Knapp's last case special paralytic symptoms had at no time been observed.

NOTE.—A favorite seat of some forms of osteoma, especially the ivory exostoses, is about the face and anterior part of the skull near the face, especially near the frontal and other sinuses, where they form more or less rounded nodulated tumors of extreme hardness. This form of tumor has often been observed to arise within the diploë of the skull on the frontal regions, growing and separating the tables from each other, until it bursts through one or both of them.

HYPERTROPHY OF THE HEART WITHOUT VALVULAR LESION, BUT ASSOCIATED WITH CHRONIC NEPHRITIS.

DR. PEABODY also exhibited a heart, showing marked hypertrophy of the left ventricle without the presence of any valvular lesion. The hypertrophy was found to accompany a condition of chronic diffuse nephritis.

SIMPLE HYPERTROPHY.

In 1862, DR. AUSTIN FLINT presented a case of *simple hypertrophy* from a man æt. 23, who had been well from boyhood and always able to take active exercise. He suddenly staggered and fell dead.

Autopsy.—Face tinged, and blood oozing from both nostrils and ears; profuse bleeding of the scalp; the vessels of the brain excessively engorged, but no extravasation of blood or serum; brain substance firm and not vascular; abdominal viscera congested; kidneys contracted. The heart weighed fifteen and one-half ounces; the left ventricle was thick, its cavities not enlarged; the aortic, mitral, and all other valves were healthy. The case was a very interesting one of excessive hypertrophy without valvular disease, and without signs of cardiac disorder. There had been no shortness of breath or palpitation. The sudden death also was peculiar, although it may have been accelerated by intense business excitement. The immediate cause of death seemed to be congestive cerebral apoplexy, induced by excitement of the brain, aided by the hypertrophy of the heart, which was possibly congenital, but more likely connected with latent kidney disease. Such superficial effusion on the brain has caused death in other instances. In coroners' cases, in which people are found dead in bed, congestion of the brain and simple heart hypertrophy, with contracted kidneys, are often found. The hypertrophy alone will not cause death. Spasm of the glottis occurs in some of these cases, from congestion about the rima, but the most common cause is disease of the kidneys.

In 1870, DR. FINNELL exhibited a hypertrophied heart, from a man aged forty-five, dead of apoplexy. It weighed eighteen ounces; the walls of the left ventricle were one inch thick, those of the right from two to three lines. No valvular lesion was discoverable. The apoplectic extravasation was extensive into the middle and the posterior lobe of the left hemisphere, and into the fourth ventricle.

In 1869, DR. ROBERT NEWMAN presented a hypertrophied heart weighing eighteen ounces, from a male thirty-five years of age who died of abdominal and pleural dropsy. The heart, although so much enlarged, was without valvular lesion.

He examined the organ microscopically, and found few, if any, normal muscular fibrillæ in it. A fasciculus was occasionally seen, in which the striæ were very indistinctly marked, but the fibre in all cases was studded with globules of oily matter. The great mass of fibres, however, did not preserve the faintest trace of the characteristic markings of healthy muscle. The heart, although a very large one, must have been very feeble.

In 1869, DR. FLINT exhibited a heart, the chief interest in which was the sudden death of the patient, who was admitted into the hospital with pleuro-pneumonia. On returning from the water-closet he suddenly dropped dead in the ward. The right ventricle of the heart was in an extreme state of dilatation, and was filled with blood. No other disease of the organ was found. It weighed in all twenty-two ounces. He thought that death was occasioned by paralysis of the right side of the heart, caused by the over-distention consequent upon difficult respiration.

In 1860, Dr. Alonzo Clark presented a specimen of simple hypertrophy of the heart which is a rare disease, as he had only seen three cases, and those in connection with contracted kidney.

In 1856, Dr. Alonzo Clark presented a case of great hypertrophy of the heart without valvular disease, which is rare except in kidney disease. There was an unusual amount of atheroma in the aorta, which was ulcerated and calcified in a gentleman, æt. 65. There had been few or no symptoms until a short time before death. The kidneys were contracted.

Note.—Simple hypertrophy of the heart is not often found post mortem, except in one disease in which it is frequent enough, that is granular kidney. In granular kidney cases the heart is nearly always enlarged, and may reach the weight of eighteen to twenty-four ounces or more. There may be no dilatation, although primary hypertrophy is always associated with dilatation. The symptoms ascribed to hypertrophy are due to dilated hypertrophy and are severe in proportion to the dilatation. Patients with granular kidney and simple hypertrophy are not aware of any change in the heart; they are always adult; and as soon as dilatation sets in the symptoms begin. Simple hypertrophy does not cause symptoms and never exists as a primary cardiac disease.

STATED MEETING, FEBRUARY 9th, 1881.

Dr. T. E. Satterthwaite, *President, in the Chair.*
Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Composite tumor of the testicle.
   By Dr. Frederick S. Gould, Candidate.
2. Transposition of a heart, with only one auricle and ventricle.
   By Dr. A. R. Robinson, Candidate.
3. Fibro-myoma of the uterus............By Dr. R. Tausky.
4. Chronic alcoholism, with meningeal and cerebral hemorrhages, and angiolithic tumors of the choroid plexus.
   By Dr. W. H. Porter.
5. Hodgkin's disease.................By Dr. E. C. Wendt.
6. Hodgkin's disease.................. ...By the President.
7. Cancer of the rectum ....By Dr. J. W. Howe.

8. Concealed uterine hemorrhage.......By Dr. Van Gieson.
9. Caries of the elbow joint...........By Dr. C. K. Briddon.
10. Fibrinous cast of the edge of the tongue.
    By Dr. L. Elsberg.
11. Carcinoma of the pancreas, with occlusion of the ductus communis and cavernous metamorphosis of the liver.
    By the President.
12. Aneurism of the thoracic aorta.....By Dr. Wm. H. Porter.

Dr. Willard Parker, Jr., presented a case of composite tumor of the testicle, on behalf of a candidate.

COMPOSITE TUMOR OF THE TESTICLE.

By Frederick S. Gould, M.D., *Candidate.*—C. E. B., American, æt. 24; married; occupation, delivery clerk. His father died of phthisis; otherwise, the family history was good, with marked longevity on both paternal and maternal sides. He says he has always been healthy, and denies having had venereal disease, and now has one child in good physical condition. He attributes his present trouble to an injury (squeeze) on April 1st, 1880, which caused only a temporary uneasiness; but on April 28th he "took cold" and felt pain in his back and left groin, so that he was unable to bend over, and had a sense of weight in left testis, but without nausea or retention of urine. Three leeches and a lotion were applied, and rest in bed ordered, and the patient improved and went out May 22d. The pain recurred on June 12th, accompanied with fever and insomnia, and he again took to his bed. The testicle enlarged rapidly, and in the first week of October ulceration in two places on the anterior and lower surfaces commenced, with a serous, offensive, though not profuse discharge, and followed with abatement of pain.

On November 1st, 1880, the testicle was very large, dark-red in color, the superficial veins distended, and three points of superficial ulceration showed themselves. There was fluctuation at circumscribed points, indicating the presence of cysts. The tumor was pyriform, not nodular, but hard. Pressing it, caused the well-known peculiar sensation of testicular nausea. The inguinal glands on the left side were enlarged. Examination per rectum gave negative results. In the afternoon, Dr. Parker, Jr., performed castration. The cord, which was quite short and large, was transfixed with a double-threaded needle, and each half tied separately. The arteries of the cord were hypertrophied, the spermatic being quite as large as the radial artery. Numerous adhesions were broken up and the gland removed. The hemorrhage was quite profuse, owing to the vascularity of the integuments; and retention of urine supervened, which was relieved by catheterization. The ligatures came away on the eighth day, and on November 30th the patient was out and about, the wound being nearly healed.

On cutting open the testicle, which, when deprived of blood, weighed three and one-half pounds, several superficial cysts were found, but no central cavity. The arteries in places presented atheromatous patches; there were dense bands of connective tissue, inclosing cheesy deposits. The microscopical examination revealed the composite nature of the growth. It was enchondromatous, sarcomatous, adenomatous, cancerous, etc.

January 20th, 1881, patient presented himself and reported himself in good condition, the wound having healed completely.

NOTE.—There is a curious proneness of morbid growths in the testicle to show a polymorphous structure, and the commingling of several varieties of structual elements in these tumors often renders it difficult to refer them to the ordinary types of disease. Cartilage may be mixed with medullary sarcoma and cysts, and is sometimes called compound enchondroma; or mucous tissue, cartilage, glandular acini, and large cysts may be found, forming a so-called cystic myxo-sarcoma. Some tumors contain muscular fibre, striated, or non-striated, with cartilage or cancerous tissue. In 1861, Dr. D. S. Conant presented a specimen of a cystic myxo-sarcoma of a retained testicle, removed by operation from the groin. In 1868, Dr. Henry B. Sands exhibited a specimen of mixed cystic, sarcomatous, and myomatous tumor of the epididymis. In 1858, Dr. Willard Parker presented a case of encephaloid disease of the testis from an infant only ten months old, in which there was also a combination of fatty and cheesy degeneration. In 1866, Dr. Joseph C. Hutchinson exhibited a specimen of encephaloid disease of a testicle, which had never fairly descended into the scrotum. In 1862, Dr. Alfred C. Post presented a case of mixed cystic and encephaloid disease. In 1871, Dr. Francis V. White exhibited a case of composite cystic and spindle-celled sarcoma of the testis, with disease of the abdominal glands and omentum.

In 1873, Dr. A. Clark presented a case of mixed cystic and sarcomatous disease, followed by sarcoma of the retroperitonæal glands, and of the pericardium. In 1869, Dr. Camalt presented a case of cancer of the testicle, attended with cancer of the liver. In 1869, Dr. Markoe exhibited a case of round-celled sarcoma of the testicle from a child aged three years. In 1862, Dr. J. J. Hull presented a case of medullary cancer of the testicle. In 1852, Dr. John A. Swett presented a case of encephaloid cancer of the testicle, followed by similar disease of the lungs. In 1875, Dr. H. B. Sands exhibited a case of compound adenomatous and round- and spindle-celled sarcoma of the testicle.

DR. WM. N. PORTER presented, on behalf of a candidate, a case of transposition and malformation of the heart.

TRANSPOSITIO CORDIS WITH ABNORMAL AND IMPERFECT DEVELOPMENT, THERE BEING ONLY ONE AURICLE AND ONE VENTRICLE.

By DR. A. R. ROBINSON, *Candidate.*—The mother had had four perfect and healthy children. The fifth, a female, was born at term, and weighed about seven and three-quarters pounds; its nutrition was very good, nothing unusual was noticed, and the color of the skin was normal. For twenty-four hours the new-born child appeared healthy, and drew very strongly upon the nipple. In two hours more it began to fail; it could no longer cry with the same force, whined considerably, and would not seize the nipple. This debility increased, and the child died thirty-one hours after birth. There was no radial pulse two hours before death. The skin never became cyanosed.

Autopsy.—Nineteen hours after death. Normal amount of liquid in the pericardial sac. Only one auricle and one ventricle were present, and those on the right side. The cavities were about the size of the combined cavities of a normal heart. The pulmonary veins (two) entered the right half of the auricle. The aorta arose from the right ventricle at about the usual situation, and the orifice was normal. The pulmonary arteries arose from the aorta about three-quarters of an inch from the origin of the latter. There was no trace whatever of an auricular or ventricular septum, but the orifice between the auricle and ventricle was provided with a mitral valve. The aorta passed at first from right to left, then from left to right, and again from right to left to the normal situation. The right lung had six lobes and the left lung five, all of which had been completely inflated and were in good condition.

Abdominal organs. The liver was situated on the left side. The other abdominal organs were normally placed. The blood-vessels had their natural positions. The cause of death was not definitely known.

THE PRESIDENT asked if the malformation was a common one, and Dr. Porter answered that it was not, and further remarked that the pulmonary veins sometimes rise from the descending aorta. In the specimen presented, they seemed to come from the ascending aorta, probably because there was only one ventricle and auricle in the heart.

The President said that this deformity is more rare than that in which there is one ventricle and two auricles.

NOTE.—In 1852, Dr. John O. Stone presented a case marked by absence of the pulmonary artery, and by the presence of openings between both auricles and ventricles. In 1855, Dr. Alonzo Clark exhibited a specimen with almost entire deficiency of the right ventricle, and abnormal openings between the auricles and ventricles, in a child two and a half years old. In 1855, Dr. Dalton exhibited a heart with only one auricle and one ventricle. In 1863, Dr. Lewis Smith presented a heart with a very small aorta and almost complete absence of the left ventricle. In 1848, Dr. G. A. Sabine presented a case of occlusion of the aorta and almost entire absence of the left ventricle. In 1848, Dr. Thomas Cock presented a similar case; and in the same year a case with only one auricle and one ventricle, and those on the left side: the aorta and pulmonary artery both arose from the left ventricle. In 1845, Dr. Willard Parker presented a case with almost entire deficiency of the left auricle and ventricle with an impervious aorta. Numerous other interesting cases have been presented, and also malformations of the aorta and pulmonary artery, all of which are easily explained.

Thus the heart is first represented by a simple long cylinder of embryonic globules, some of which soon become organized into muscular fibres. Next, the cylinder assumes the shape of a letter S and commences to contract and propel the blood. Then the doubly curved cylinder, by successive constriction, becomes divided into three cavities, viz., one auricular, one ventricular, and one aortic saccule or bulb. Each of these quickly becomes subdivided; thus a septum commences at the apex of the ventricle and grows upwards to the base dividing it into two ventricles; some time after this the septum between the auricles begins to appear and, growing both from above and below like two folds with crescentic margins, leaves the foramen ovale between them; and lastly the bulbus arteriosus becomes divided longitudinally into the pulmonary artery and aorta, each remaining connected with its respective ventricle.

As regards congenital malformations of the aorta and pulmonary artery, at an early period two ascending arterial trunks are given off from the heart, which throw off five secondary trunks, loops, or arches on each side, placed one above the other, termed the cervical arches. The original ascending arterial trunks become converted into the carotids. The fifth or uppermost cervical loop or arch or trunk remains at the base of the brain as the circle of Willis. The third cervical loop remains on each side as the subclavian artery. The second cervical loop or arch becomes altered in a very different manner on the two opposite sides, viz., on the left side it becomes enormously developed and is changed into the arch of the aorta; while on the right side it becomes smaller and smaller, and at last altogether disappears. The first cervical loop or arch or that nearest the heart remains during fœtal life as the ductus arteriosus.

ANEURISM OF THE THORACIC AORTA.

Dr. W. H. Porter presented a specimen accompanied by the following history, furnished by Dr. J. A. Wells, house physician, and in the service of Dr. Alexander Hadden: P. T——, aged forty years, born in Ireland, single, and a conductor, was admitted to the Presbyterian Hospital December 23d, 1880. Family history good; habits, intemperate; had a chancre twenty years ago; but good health prior to two years ago, when a cough developed, which was paroxysmal in character, and continued until death. The cough had been accompanied by more or less muco-purulent expectoration, that had been at times tinged with blood. He never had any distinct hæmoptysis; but considerable dyspnœa, especially marked upon exertion; and persistent pain in the right side. No hectic. His general health became impaired, and two weeks before admission all the above symptoms became aggravated, and were accompanied by high fever and general constitutional disturbance. The pain, dyspnœa, and expectoration were especially increased.

When admitted he was suffering from severe dyspnœa, with flushed face, but his temperature was nearly normal. His cough was paroxysmal, and expectoration scanty and viscid. Moist râles were heard over both lungs, anteriorly and posteriorly. Voice and breath heard, except over the lower lobe of the right lung. Dulness below right scapula, also bronchial voice and breathing. Heart-sounds very feeble; no murmurs. Pulse 140. Stimulants and diuretics were administered, and on December 25th he had slightly improved.

December 29th.—Dyspnœa less severe. Dry cups applied and stimulants continued.

Physical Examination.—Over the superior portion of the right lung the breathing and voice-sounds were nearly amphoric in character. The heart was carefully examined with a stethoscope, but no murmurs could be detected. The dyspnœa became so excessive that the patient could not lie down while in the hospital. There was no episternal pulsation.

January 3d, 1881.—The patient coughed up four ounces of bright-red blood, but the hæmoptysis seemed to yield to the free administration of ergot.

January 4th.—At 3 A.M. he coughed up three ounces more of bright-red blood. This hemorrhage also yielded to rest and ergot, and he remained comfortable until 7 P.M., when another slight hemorrhage occurred, and he fell back dead.

Necropsy thirty-eight hours after death: rigor mortis well marked; body well nourished.

Thoracic Cavity.—The pericardium contained one ounce of serous fluid. Left heart hypertrophied; weight of organ, fifteen ounces. One of the segments of the pulmonary valve had a small hole through it; otherwise the right side of the heart was normal. One segment of the aortic valves had one hole in it, a second segment three. Both the mitral and aortic valves, as well as the aorta, showed evidence of acute inflammation by the presence of deep congestion and numerous ecchymotic spots. At the base of the aortic valves there was marked atheromatous degeneration, and the aorta, from the heart to its termination, was one mass of fatty and atheromatous degeneration. Near the aortic valves there were several cicatricial depressions. At the posterior and upper part of the transverse portion of the aorta there was a small aneurism which encroached upon and dilated the commencement of the innominate artery; while the left common carotid appeared to be perfectly normal. The aneurism had ulcerated through the trachea at two points; one opening being between the fourth and fifth rings above the bifurcation; the second one higher up. The aneurismal sac, not larger than a good-sized hen's egg, was partially filled with a clot, which had apparently at times acted as a ball-valve.

The left lung was deeply congested, and in the most dependent parts in a stage of hypostatic congestion; weight twenty-five ounces. The right lung floated in water, although the lower lobe presented the gross appearances of the third stage of pneumonia. Weight of right lung, forty-eight ounces. Spleen enlarged; weight, nine ounces. Kidneys deeply congested; capsule non-adherent; weight, eight ounces each. Liver enlarged; weight, eighty-eight ounces.

CHRONIC ALCOHOLISM, MENINGEAL AND CEREBRAL HEMORRHAGES, ANGIOLITHIC TUMORS OF THE CHOROID PLEXUS.

DR. PORTER presented a second specimen with the following history:

A woman, thought to be upwards of sixty years, was arrested for habitual drunkenness January 31st, 1881. At the police station she became unconscious, and Dr. Duffield found there was no evidence of intoxication, but a large ecchymotic spot over the right eye and an extravasation in the tissues about the orbit, and the patient soon died.

Autopsy.—Fifty-six hours after death: the whole surface of the left hemisphere was covered by a blood-cot weighing eight ounces, and located between the dura and pia mater. Both ventricles contained bloody serum in excess, and their walls were the seat of small extravasations. The fourth ventricle likewise contained bloody serum in excess. There was a blood-clot within the substance of the pons upon the right side. No fracture or fissure of the skull was found. The occurrence of the multiple coagula was, therefore, regarded as the result of a general systemic condition, and violence was rejected as the cause of death. The rupture of several vessels in such cases has been observed in a number of instances. Unfortunately, there was little information that could be obtained which would throw light upon her previous condition.

The heart exhibited slight atheroma on the valves. The liver was enlarged, fatty, and weighed eighty-seven ounces.

An interesting feature in the cranial contents was the presence of two tumors, one in each choroid plexus of the lateral ventricles. The larger was the size of a hazel-nut, yellow, streaked by blood-vessels upon the exterior, and having contents which seemed to bag out irregularly, much as a sack would that had been filled with large stones. On section of one tumor, the smaller, about half the size of the larger, there was a gritty sensensation under the knife as if there were calcareous particles present, while there was much matter that appeared sebaceous. On microscopic examination it was found that the neoplasm was composed of a fibrous basis in which blood-vessels were very numerous, and contained concentrically formed granules, of various sizes, together with pigment, while cholesterine in plates was freely intermixed throughout the solid portions. It was not thought that the tumors had occasioned any symptoms.

THE PRESIDENT remarked that these tumors are probably not sarcomatous, but simply fibrous tumors, in which there is a large development of blood-vessels. In connection with them are found these curious sand-particles, which have concentric markings and are probably calcified epithelial corpuscles in compressed balls, having the appearance of epithelioma. Again, the existence of cholesterine indicated a further retrograde metamorphosis of epithelial tissue common in this locality.

FIBRO-MYOMA OF THE UTERUS.

DR. R. TAUSZKY presented what seemed to be a fibrous tumor, removed from the uterus of a patient twenty years of age, with the following history: She began to menstruate at the age of fourteen, and the monthly discharge was regular for about one year, when she began to suffer extremely from dysmenorrhœa, for which she consulted many physicians, but received only temporary relief. About two months ago she began to suffer from profuse menorrhagia and metrorrhagia, became very anæmic, and was obliged to remain in bed. Dr. Tauzsky saw the patient in consultation with Dr. Strew, who had diagnosticated retroflexion, as had Dr. Skene, of Brooklyn, some time previously, but the condition did not seem to explain the severe dysmenorrhœa and menorrhagia. After dilating the cervix, a tumor in the cavity of the uterus was diagnosticated. The dilatation was increased, and the tumor was removed. But, despite the dilatation, Dr. Tauzsky found it necessary to divide the tumor, and also incise the cervix before complete removal could be effected. It was attached to the posterior wall of the uterus, high up, and was so situated that it could easily escape recognition in an examination made with the uterine sound.

NOTE.—In the earlier records of the Society fifty-two cases of more or less interest are recorded. Among them Dr. Willard Parker's case in a girl aged eighteen may be regarded as early, as they rarely appear before the age of twenty-five in the unmarried, at a later age in the sterile, and at a more advanced age in fruitful women. In Dr. Emmet's two hundred and thirty-five cases, there was only one at the age of 18, one at 22, one at 23, and ten between the ages of 24 and 25 years. Dr. Emmet's oldest case was 58 years of age, while our records presented one of 60 years and another of 84. In Dr. Emmet's two hundred and twenty-five cases, twenty-five were from 25 to 30 years of age, fifty between 30 and 35 years, forty-eight between 35 and 40, forty-two between 40 and 45, twenty-five between 45 and 50, eight between 50 and 55, and only five between 55 and 60 years old. Several cases have been reported which disappeared spontaneously during pregnancy, and the subsequent involution of the uterus, probably from fatty degeneration; and phosphorus and arsenic have been suggested as means to bring about adipose metamorphosis, although bromide of potash, chloride of calcium, and ergot have also been employed with apparent success. But numerous cases complicated with pregnancy have been presented to the Society, some of which terminated fatally. In 1855, Dr. W. C. Detmold first presented a case of myo-fibroid, consisting almost exclusively of muscular fibres. In 1857, Dr. T. G. Thomas first drew attention to the frequency of fibroids in negresses. In 1860, Dr. H. B. Sands called attention to the fact that the unstriped muscular fibres which always exist in these tumors cannot always be detected without previous maceration in dilute acetic acid, one part to fifty-nine, or in dilute alcohol, followed by dilute nitric acid, one to fifty-nine. Calcified fibroids were presented in 1852 by Dr. Hall; in 1853, by Dr. Markoe; by Dr. Agnew, in 1857. In 1856, Dr. Alonzo Clark presented a uterine fibroid, weighing eighteen pounds, complicated with a sarcoma of the uterus, and a like tumor in an enlarged liver, weighing sixteen pounds. In 1869, Dr. Wm. C. Roberts presented a uterine fibroid, complicated with cancer or sarcoma of the uterus, and cancerous or sarcomatous tumors of the small intestines and colon.

Dr. E. C. Wendt presented specimens from a patient who died of

HODGKIN'S DISEASE.

They were accompanied by a history furnished by Dr. Haig, assistant house physician to St. Francis' Hospital.

J. B——, aged eighteen years, United States, single, plumber. Father died of cancer of the stomach; mother cut her throat while insane. About eighteen months ago, he noticed a small enlargement beneath his right ear, movable, rather hard, and painless. For six months it slowly enlarged, and then quite suddenly it rapidly increased in size, so as to soon occupy the side of the neck from the clavicle to the ear. From the median line this knobby tumor extended to the anterior border of the trapezius muscle. He then applied for relief at a clinic, and was operated upon, sixty-two enlarged lymphatic glands being removed from the lateral region of the neck, the patient being nearly five hours under ether. He was afterward removed to Bellevue Hospital, where he remained seventeen days, and when discharged the cervical wound had nearly healed; but he noticed a small nodule below the inferior maxilla, and also several lumps above the clavicle on the right side, which immediately began to increase rapidly in size. The glands on the opposite side of the neck also began to enlarge. He entered Roosevelt Hospital, but was refused the desired operation; was next admitted to Bellevue, but Dr. Wood also refused to interfere. The glands continued to increase in size, the patient became intensely anæmic, at the same time losing flesh and strength. He was admitted to St. Francis' Hospital on November 17th, 1880, when he had a hard nodular tumor, extending from the median line to the edge of the trapezius muscle, and from the lobule of the ear and the base of the skull behind and lower border of the inferior maxilla in front, to midway between the inferior maxilla and the clavicle. There were also several small movable nodules above the clavicle. He also had a tumor filling the supra-spinous fossa of the right side. In the right axilla there were several nodules. On the left side he had similar enlargements as on the right side of the neck. There was no cough, neither dyspnœa nor dysphagia, nor interference with phonation nor respiration, and no pain. He was put on Fowler's solution and tonics, but did not seem to improve. A sinus that had remained from the operation continued to discharge. The tumors on both sides steadily enlarged. He grew more anæmic, and his appetite was poor. About December 10th his feet became œdematous, the urine showed albuminuria (fifty per cent), and remained albuminous, ranging from thirty to seventy per cent until death. Patient continued to grow worse. The glands beneath chin were quite soft, and seemed as if they were undergoing suppuration. Electricity was tried, but produced no effect. From this time until death he suffered great pain in the abdomen. He died suddenly on January 11th, 1881.

[DR. HOWE added that for several days before death the patient suffered from dyspnœa like that seen in croup.]

Autopsy.—Abdominal cavity contains a small amount of serum. Spleen very much enlarged, its capsule tickened; on section, there appeared numerous round, yellowish-white nodules; its substance was abnormally hard, and the remnant of pulp sprinkled with granules resembling sago grains. Treated with iodine, these granules assumed a dark-brown tint, and at the hilum a large cluster of hard, lymphatic glands appeared. The kidneys were very much enlarged, resembling the "large white kidney;" some of the pyramids, however, were normal in appearance. The retro-peritoneal and mesenteric lymphatic glands were very much enlarged, especially the former. *Pancreas*, of abnormally firm consistence, appeared to be hypertrophied. Lymphatic glands at the hilum of the kidneys enlarged, forming a hard bunch. Left lung showed marginal emphysema and brown induration. Right lung in same condition. Liver enlarged and very pale; whitish nodules like those in the spleen are found throughout its substance. Stomach quite small. Inguinal glands are enlarged and hard. Axillary, supra- and infra-clavicular, mediastinal and bronchial glands, at the lesser curvature of the stomach, all participate in this universal increase of volume. Wherever lymph-glands occurred in the body they were found conspicuously enlarged, but they had not a uniformly hard consistence; those beneath the jaw were especially soft.

Remarks.—"The blood of this patient was not examined during life, but on post-mortem inspection an increase in the proportion of the white globules was *not* found. It appears, therefore, that the case was one of so-called pseudo-leukæmia (Cohnheim), or, better, Hodgkin's disease. Of the true nature of this affection we know little. The progressive enlargement of lymphadenoid structures has led Trousseau to call the disease adínie. The essential lesions are similar to those of true leucocythæmia, and it is not easy to understand why in the one case the leucocytes are so enormously increased in number, whereas in the other their relative proportion remains quite or nearly normal.

"A remarkable feature in this case was the presence in the spleen of amyloid degeneration of the Malpighian bodies, in conjunction with diffuse hyperplasia and the multiple occurrence of lymphadenomatous tumors. Microscopical sections show these pathological conditions very beautifully. Granules of blood-pigment, variously tinted, brown, yellow, or almost black, are scattered in heaps throughout the new-formed adenoid tissue. In the liver the neoplasms have a structure identical with that of the splenic nodules. The disease has been described by Virchow as lympho-sarcoma, and the evident malignancy of these cases perhaps justifies Billroth's appellation of these new-growths as "malignant lymphomata." Langhans called the disease malignant lympho-sarcoma, which is a superfluous pleonasm. As regards the knobby tumors of the lymph-glands, which in some places appeared in confluent lumps, their cut surface in general presented the ordinary encephaloid appearance of most hyperplastic processes involving these organs. It is a fact deserving of mention that their gross appearance was not altogether uniform, the variations corresponding to histological differences of structure. Most of the glands were hard, firm, rather inelastic, and these were found to show a comparative preponderance of the new-formed connective-tissue reticulum over the accumulated small round-cells. On the other hand, the softer glands showed such an overabundance of lymphoid corpuscles, that all other structures were veiled by their presence. It seems that the older collections were the harder ones, and the most recent ones those of softest consistence. But this point was not clearly settled. The latter had certainly grown most rapidly. I am not aware that sago-spleen is a frequent, or, for that matter, even a rare concomitant of Hodgkin's disease. Perhaps the prolonged suppuration following the surgical interference may be considered an etiological factor in bringing about the amyloid degeneration.

"As for the many different names the disease has received, they indicate the unsettled condition of our knowledge regarding it, this being in part due to the relative paucity of well-observed cases of this kind. It may be mentioned that Schulz (*Arch. der Heilkunde*, 1874), proposed the term dermoid carcinoma for the characteristic neoplasms of this affection; but this is a pathological term of questionable propriety. From a clinical stand-point, Wilks has coined the word lymphatic anæmia. Gowers and Ranvier have termed the disease lymphadenosis; we might with equal justice speak of scrofula as lymphadenosis. In view of the difficulties in the way of choosing a term which may be satisfactory in all respects, it seems best to retain the non-committal expression, 'Hodgkin's disease.'"

The President, DR. SATTERTHWAITE, also presented specimens from a patient who died of Hodgkin's disease.

HODGKIN'S DISEASE WITHOUT LYMPHATIC TUMORS IN INTERNAL ORGANS—OCCLUSION OF THE ILIAC VEIN.

The President then presented the cervical, inguinal, and retroperitoneal glands in a case of the above disease, with the following history, furnished by Dr. Bang, house physician to St. Luke's Hospital:

B. F——, aged eight years, of German parentage, was admitted July 17th, 1880. The mother stated that three years previously she first noticed a lump the size of an almond behind the child's right ear. At the end of a year she thought there was only a single tumor, now the size of a small orange. At the end of the second year this mass had reached half-way down the neck. More recently a large number of smaller tumors the size of chestnuts appeared.

On examination, the following points were noted: On the right side of patient's neck is a tumor measuring five and one-half inches in length by four in breadth, made up of distinct nodules, varying in size from a cherry to a hen's egg. The smaller lumps are on the borders, and are quite movable.

Below, the mass hangs over the right clavicle; above, it is limited at the insertion of the left sterno-cleido-mastoid muscle. It reaches to the median line anteriorly and posteriorly.

In the left groin there is also a tumor which is the size of a small egg, made up of three distinct nodules. In the right groin is a single movable lump the size of an almond. All the enlargements in the groins have appeared within the past five months. Further points noted by the attending physician were as follows: The glands forming the central portion of the tumor in the neck are not movable one upon another, but form a conglomerate mass. The smaller glands included in the swelling, and located on the periphery, are movable and have less consistency, but the skin covering it is everywhere freely movable. There were no soft glands anywhere in the mass, no enlargement of tonsils, no stomatitis, no enlargement of the follicles at the root of the tongue, and no indications of pressure upon the œsophagus, trachea, or recurrent laryngeal nerve. There was a single enlarged gland in the left axilla, and a conglomerate mass of glands in the left groin the size of a hen's egg, and a single gland of the size of a walnut in the right groin.

Physical examination failed to make out any enlargement of the liver or the spleen. The belly is protuberant. No enlargement of the epitrochlear glands. The veins over the upper portion of the chest on both sides are distended. Examination of lungs negative. Heart in natural position; its sounds normal. All visible mucous membranes anæmic. She has had no diarrhœa or vomiting.

October 5th.—The tumors have grown softer under the oleate of mercury, and the sternal end of the right clavicle is movable in its articulation.

November 29th.—Patient has been having the tumors daily injected with Fowler's solution (from one to ten minims). The blood is extremely watery and pale in color. No bad effects from the use of arsenic.

January 2d.—Without warning, the patient was taken with choreic movements of the left arm, which continued all day.

Previous to this occurrence the patient had no alarming symptoms. She never complained of suffering in any way, yet had no inclination to play with the other children. Her face was extremely anæmic and waxen in appearance.

Examination of the urine on several occasions gave negative results.

The choreic movements of the left arm and occasional general convulsions continued for two days, when she spat up some purulent fluid, and expired in a convulsion, January 3d, 1881.

Autopsy.—Great emaciation, anæmia, and œdema of the feet. The glands implicated were found to be the *left* cervical, superficial and deep, and the axillary to a slight degree; and the right lumbar, sacral, iliac, inguinal, and mesenteric. The submaxillaries, sublingual, parotids, the liver, spleen, kidneys, and intestinal tract contained no nodules, and no special variation from the normal, except as already mentioned, if we exclude a purulent bronchitis. It was noticeable on removing the lumbar and iliac nodules that they completely encircled the vessels, occluding the right common iliac and portions of the internal and external iliacs. On exposing the occluded portions, they were found filled with a clot which at one point had broken down into a puriform fluid.

Weight of child, 30 pounds 10 ounces; liver, 1½ pounds; right kidney, 4½ ounces; left kidney, 5 ounces; spleen, 3½ ounces.

Usually the nodules were separated by more or less well-marked septæ, but sometimes they were agglomerated together. Sections of the growths were quite uniformly pinkish-white in color, and soft, but some had indications of caseation at their centres, though this was infrequent. On microscopic examination, they gave the appearances of lymphatic tissue, in which the corpuscular elements were very numerous and the framework slight.

The President remarked, further, that it was not always easy to distinguish this disease from splenic leucocythæmia, because in Hodgkin's disease, as now described by English writers, the spleen is found enlarged in a small number. He should prefer to base his diagnosis in such cases on the occurrence of the peculiar glandular enlargements, particularly in the cervical region, especially if they showed a tendency to coalesce. Other important symptoms were progressive emaciation and anæmia. It will be difficult to decide about the blood unless the hæmatometer is used. In this case there had been a diversity of opinion, perhaps because no one had used this instrument. He would certainly expect a diminution in the red corpuscles, and less frequently an increase in the white.

DR. SELL referred to a case in which a boy, twelve years of age, had an enormous enlargement of the cervical lymphatic glands, the glands in the right axilla and left groin; and also bronchitis with chronic pneumonia, and diarrhœa. His blood had not been examined.

In Vol. III., p. 96, of the Transactions is a case of *leucocythæmia splenica.*

NOTE.—The earliest case presented to the Society was in 1859 by Dr. Alonzo Clark. A lad, aged 16, had an extraordinarily great deposit in the lymphatic glands, a chain of which extended from the ear to and under the clavicle. There was also a tumor on the epigastric region. He was short breathed, had a troublesome cough, with some œdema. There was dulness on percussion and râles at the apex of the right lung, and he had night-sweats. He had extreme dyspnœa at times. and could only sleep resting on his knees with a pillow between his thighs and abdomen, and leaning forward on another pillow: this was a marked feature in his case. The spleen was also large, and he had a diarrhœa by which two quarts were evacuated per day of a thick, gruel-like, yellowish-gray fluid, which looked nearly like pure pus.

Autopsy.—The enlarged glands in the neck were continuous with others in the posterior mediastinum; small below and large above, pressing into the anterior mediastinum; those on the left side of the chest were numerous and small. Those on the right side were equally numerous and large, and one was of the size of a full-grown peach. There was a small tumor on the pericardium, but none in the lungs: in all the thoracic tumors weighed twelve ounces. There were three pints of sero-purulent fluid in the abdomen and an enormous enlargement of the retro-peritoneal glands behind the stomach, pancreas, duodenum, transverse colon, and upper part of the small intestines. The masses were composed of aggregated tumors, white or grayish-white in color, and varying in size from that of a bean to a small apple. They also extended between the cruræ of the diaphragm from the last dorsal to the third lumbar vertebra, and were from three to four inches thick on the spine. One large tumor was adherent to the liver; another to the gall-bladder; while the abdominal aorta and vena cava ran through the

posterior half of a third one. The thoracic tumors weighed over twenty-nine ounces, but many of them could not be removed. The spleen was thickly crowded with hard white tumors as large as a cherry. The colon was filled with the gruel-like fluid described when speaking of the diarrhœa.

In 1870, Dr. Loomis presented a case from a German, thirty-six years of age, who was admitted into Bellevue Hospital on the 20th of December. He was free from any hereditary or acquired constitutional disease, and had always been perfectly healthy until two years and a half ago, when he noticed a swelling a little behind the right clavicle, composed of a number of smaller tumors, which, finally uniting, formed a tumescence of considerable size. Similar swellings soon appeared in the arm-pits and groins, and six months before his admission he observed another mass about the centre of the sternum near the median line. The strength of the patient failed so rapidly that four months ago he was unable to walk across the room without assistance, although his digestion and appetite were perfect. He had no pain anywhere, neither was there any difficulty in breathing, but he was very much emaciated, extremely pale and anæmic, and so prostrated as to be unable to get in and out of bed unaided. His appetite was rather unnatural, as he desired more food than he could get. The tumor on the right side of the neck was large enough to amount to a deformity, and extended as high up as the base of the skull; and there was another on the left side of the neck about one-third its size. The nodule on the sternum was as large as an egg and not movable. The axillary masses were only slightly movable, averaged in size a pigeon's egg, and were more or less united. Firm pressure upon the abdomen discovered tumors along the spinal column. There was almost complete aphonia, but the thoracic organs seemed healthy. His pulse was feeble, not much accelerated; and he had no night-sweats or cough. From his entrance into the hospital he steadily emaciated. On the 20th of January he was seized with great difficulty of breathing necessitating artificial respiration, and from that time until his death on the 22d, he suffered more or less from dyspnœa, and finally died from exhaustion.

Autopsy.—Brain and meninges normal save a slight sub-arachnoid effusion. The neck on both sides was very much enlarged; the tumor of the right side extended from the base of the brain along the neck to the clavicle and underneath it; it was lobulated and multiple; its component nodules varied in size from a pea to hen's egg. The mucous membrane of the larynx, especially the upper portion, was thickened and presented points of ulceration distributed over the epiglottis and vocal cords. The right pleural cavity was one-third filled with serum, in which were floating flocculi of recent lymph. This probably explained the dyspnœa, although scattered throughout the lung substance were little nodules the size of a pin's head, some corresponding in their position to the smaller bronchi, while others appeared to be developed in the walls of the larger tubes, giving rise to dilatation. The bronchial glands were somewhat enlarged; and on the anterior portion of the mediastinum was a tumor, measuring four inches by two, on the lower border of the sixth rib, and corresponding with the other growth on the outer portion of the sternum, although they had no direct connection with each other.

The stomach and liver were normal, but the spleen was much enlarged, measuring six inches in its long and four inches in its short diameter; and scattered through its substance were nodules of a whitish color, varying in size from a pea to a pigeon's egg.

There was follicular ulceration throughout the intestines, most marked in the large bowel, which accounted for the diarrhœa which had been present. The mesenteric glands were enlarged and a chain of swollen lumbar glands extended from the diaphragm to the bifurcation of the abdominal aorta.

There was no abnormal increase of the white corpuscles of the blood.

NOTE.—There is an enlargement of many lymphatic glands throughout the body, and masses of new-growth resembling lymphatic tissue in internal organs, especially the spleen. It is analogous to, but not identical with, leucæmia, since there is no increase in the white corpuscles of the blood. In the earlier stages the smaller glands are much more vascular and softer than the more advanced, which are pale, tough and elastic, and often almost homogeneous and translucent, or even waxy in appearance. In the smaller tumors there is a great abundance of cells, often larger and more irregular in shape than ordinary lymphoid cells; while myeloid or giant cells are not infrequently seen. As the gland increases in size the cells multiply, but are smaller, and abundant nuclei are produced. In more advanced stages the stroma increases, while the cells diminish and actually waste, till the bands of stroma appear greatly increased in width, by albuminous exudation; although the parts much resemble lardaceous degeneration, there is no change produced by iodine; and they also do not undergo caseous transformation, softening or calcification, like scrofulous glands. Hodgkin's disease is common in the spleen, lymphatic glands and often in the liver; is not very infrequent, and can be recognized clinically. The state of the spleen is remarkable, for it is not only more or less increased in size, but contains a number of deposits of yellowish-white, tolerably firm opaque matter resembling masses of suet, connected with the trabeculæ of the spleen, but deep-

seated. This deep seat and the absence of hæmatoidin pigment distinguishes them from embolic infarctions. There is a fibrous meshwork containing lymphoid cells; sometimes the fibres preponderate and the masses are harder; at others the cells are vastly more numerous, and then both in appearance and in tendency the diseased patches resemble cancer, inasmuch as they spread malignantly to neighboring points. The addition of similar growths in the portal canals of the liver and the glands produces gradual œdema, with wasting and dropsy. It is most common in young people, but has been seen in those 50 or 60 years of age.

CANCER OF THE RECTUM.

DR. J. W. HOWE presented a specimen from a man upon whom he had performed lumbo-colotomy in November, 1880. H. L——, sixty-one years of age, German. Family history unimportant. Never had rheumatism or syphilis. Had typhoid fever fourteen years ago, and was sick two months. Nine months previous to admission to the hospital, blood and fæces escaped from the anus at the time of micturition. He also suffered from tenesmus, and with each stool lost considerable blood. This condition of affairs continued with loss of flesh and strength, and three weeks previous to his admission he was unable to evacuate his bowels, even by the use of cathartics and enemata. The calibre of the rectum was closed entirely by the cancerous mass. Two days after admission, Dr. Howe performed lumbo-colotomy according to Bryant's method, which was followed by relief from pain and all the distressing symptoms from which he had previously suffered, and he lived till February 6th, 1881.

DR. GEO. F. SHRADY asked if there was any discharge of fæces per rectum after the operation.

DR. HOWE replied that there was. He further remarked that in one hospital the operation of lumbo-colotomy was refused in this case, and complete extirpation of the rectum was proposed.

DR. BRIDDON regarded extirpation as a very dangerous procedure, and thought that the only safe method of offering relief was lumbo-colotomy. He referred to a case in which he performed lumbo-colotomy for stricture of the rectum in 1879, and the patient yet remained well. He thought it was a common result for the stricture to gradually disappear, especially if of syphilitic origin, after the fæces began to pass through the opening in the loin. But he had never seen a case in which fæces passed through the rectum beyond two or three weeks after the operation.

Dr. Howe said that in his case fæces passed through the rectum during the last three weeks of the patient's life, but he believed it to be due to the sloughing of the cancerous mass.

In Vol. II. of the Transactions, pages 148 to 177, cancer of the rectum has been fully considered.

CONCEALED UTERINE HEMORRHAGE.

Dr. Van Gieson presented a fœtus and placenta from a primiparous woman, twenty-seven years of age, who was taken in labor on January 30th, 1880. At about 10 P.M. she began to have inefficient pains at long intervals, and at the first vaginal examination he noticed that she was anæmic, with a frequent and rather weak pulse; and, when she raised her head from the pillow, there was a tendency to syncope. There was no external hemorrhage. Pregnancy had advanced to between the seventh and eighth month, and as she had been under his care during the last two years, and he had seen her frequently with similar symptoms, due to neurasthenia, he was somewhat misled with regard to his diagnosis. About 1 A.M., January 31st, the debility had increased, the pulse was 120, the tendency to syncope very marked, and the pains still irregular and inefficient. At the second examination the os was opened sufficiently to admit the index and middle fingers, and *dilatable.* There was no external hemorrhage. His diagnosis now was concealed uterine hemorrhage, and he determined to dilate the cervix as quickly as possible, and deliver her. The dilatation was done by a circular, sweeping motion of the fingers, and at the end of an hour and a half he was able to introduce the forceps. In the mean time the pulse had increased in rapidity, and also the tendency to syncope. The uterus seemed much larger than would be expected from the size of the fœtus; and as felt through the abdominal walls, had a distinct boggy, doughy feel; and there could not be obtained, by the most careful examination, any trace whatever of fœtal sounds. He delivered as rapidly as possible with the forceps; the placenta followed immediately, and with it not less than half an ordinary pailful of dark, grumous blood. By kneading the uterus it was made to contract. He gave whiskey, ergot, and opium, and at the end of an hour and a half she was left in comparative safety.

The child was as white as marble when delivered, and the placenta showed distinctly where the detachment had occurred. It was the third case of this kind which he had had, two of which he had reported to the Society. The importance of an early diagnosis could be readily seen, and the diagnostic points upon which he would rely, were: the marked anæmic condition of the patient without external hemorrhage, the tendency to syncope, the doughy feel of the uterus, the slow and inefficient labor-pains, and the absence of fœtal heart-sounds. She was now doing well. The only paper which he had seen that treated the subject exhaustively was that published by Dr. Goodell, of Philadelphia, in the *American Journal of Medical Sciences,* some seven or eight years ago.

CONCEALED UTERINE HEMORRHAGE.

In 1870, **Dr. Finnell** exhibited the uterus of a woman eight months pregnant, who died of concealed hemorrhage. She had been seized during the night with pains simulating those of false labor, for which an anodyne was administered. Six hours later the pains became very severe, and she was flooding violently. Death occurred fifteen minutes afterwards. The case became one for the coroner, on a charge of neglect against the physician. *Autopsy:* The uterus contained an eight months' fœtus; the membranes were not ruptured and were intact; but the placenta was entirely detached, its uterine surface lying in a large blood-clot. The point of placental attachment had been on the left side of the fundus. No cause for the accident had been assigned. The uterus was at some points scarcely more than two or three lines in thickness. He believed it would have been best to have ruptured the membranes and delivered the child at once.

Dr. Sayre thought large doses of ergot would have been serviceable in inducing rapid contraction of the uterus.

Dr. White remarked that the physician could hardly be blamed for his management of such a case, as there were no well-defined symptoms of uterine hemorrhage save those which belonged to alarming syncope. The pains were very apt to simulate those of false labor. He did not think it advisable to make a rapid delivery, and empty the uterus suddenly, before uterine contraction was induced, either by a firm bandage and pressure, or by ergot.

On motion, the uterus was referred to the committee on microscopy.

CARIES OF THE ELBOW-JOINT—AMPUTATION.

Dr. C. K. Briddon presented carious bones of the elbow-joint removed by amputation from a patient fifty-two years of age, single, a sailor, intemperate and syphilitic, who was admitted to the Colored Home, January 17th, 1879. He had been previously treated for arthritis four months; left the hospital improved, and resumed his occupation. The joint again became inflamed, suppurated, was opened, and he was readmitted December 27th, 1880. The condition of the joint was such that exsection would probably have been followed by osteo-myelitis; hence amputation seemed to be the only admissible operation, and accordingly was performed January 31st, 1881. For two or three weeks before the operation the patient's temperature had been high, sometimes 104° and 105° F., but the day before the operation it fell to 100° F.; advantage was taken of the remission, amputation performed, and immediately after the operation his general condition began to improve.

FIBRINOUS CAST OF THE EDGE OF THE TONGUE.

Dr. L. Elsberg presented a fibrinous cast of the edge of the tongue, that had formed within twenty-four hours, independent of the appearance of pseudo-membrane in any other part of the oral cavity. When he removed it, the tongue was swollen but not ulcerated. There was an ulcer in the pharynx. There was no history of syphilis. A second membrane formed within twelve hours, but it was not so thick as the first. When the cast was removed the mucous membrane was not divested of its epithelium, but it showed bleeding points. The new formation was elevated above the surrounding mucous membrane, and was limited to the edge of the tongue.

The President presented a specimen with the following history:

CARCINOMA OF THE PANCREAS—OCCLUSION OF THE DUCTUS COMMUNIS—CAVERNOUS METAMORPHOSIS OF THE LIVER.

J. McE——, twenty-three years of age, single, stationer, was admitted into the Presbyterian Hospital August 9th, 1879. He had not suffered from any inherited or acquired disease, and his first marked symptoms were those of pain in the epigastrium about one year ago. Soon after, he was taken with vomiting, and began to emaciate and rapidly lose strength. Jaundice followed, with œdema of the legs. The bowels were very much confined. After a while the icterus disappeared, but the pain continued, his symptoms suddenly became aggravated, and the stools had a clayey color.

On admission, in addition to the symptoms just noted, purpuric spots were observed over the lower extremities, and oozing of blood from the anus. Dyspnœa and pain were soon marked. He died on the following day in a comatose condition. The urine had not indicated any renal difficulty, though it contained blood.

Autopsy by Dr. W. H. Porter, twenty-one hours after death. Body deeply jaundiced. Lower extremities œdematous. The pericardial sac contained one ounce of clear, straw-colored, serous fluid; the cardiac cavities were distended with fluid blood. Valves free and sufficient. Heart substance slightly fatty; weight of organ, ten and one-half ounces, which was deficient, considering the size of the man. Right lung entirely free from pleuritic adhesions, but the left was firmly bound throughout to the chest-walls and diaphragm. Lungs œdematous, otherwise normal; weight of both, thirty-two ounces. *Abdominal cavity:* spleen firm and very dark in color; weight, nine and one-half ounces. *Kidneys* intensely congested and stained yellow, probably with bile-pigment; their capsules slightly thickened and adherent; weight, five, and five and one-half ounces each. The *stomach* showed slight evidences of chronic gastritis. When the duodenum was opened, the ductus communis choledochus was found absolutely occluded by a growth, which surrounded the bile-duct, and was posterior to, but did not involve the bowel. The whole portal circulation was to a considerable extent interfered with by the new growth pressing upon the main trunk. The common bile-duct above the occlusion was enormously enlarged, being at least one inch in diameter. The gall-bladder, also, was greatly expanded, and contained about twelve ounces of bile. The liver too was distended with blood, and stained yellow by biliary pigment; its weight was one hundred and eight ounces, or more than double the normal.

No abscesses were found at any point. The head of the pancreas was the seat of a new growth about the size of a small orange, lying behind the duodenum, completely encircling the ductus communis choledochus and occluding it. The common duct seemed to end in the centre of this growth.

Microscopic examination gave the usual evidences of scirrhous carcinoma. The greater portion of the liver was the seat of cavernous change. It looked and felt like a sponge. By using a colored injecting fluid, and syringing through one of the smaller hepatic vessels, the cavernous tissue was injected. It was not easy to determine which vessel communicated with this new tissue. At any rate, injections through the portal and its tributaries did not reach the cavernous tissue; while other injections, through the hepatics, presumably, were no more successful. As all the vessels were much dilated, it was difficult to decide precisely which they were.

This change in the liver had not produced any marked hepatic symptoms during life, though nearly the whole gland was affected: a fact which probably made the specimen a unique one. It was also to be observed that, notwithstanding the occlusion of the common duct, there were no abscesses of the liver, as are frequently observed in such cases.

DR. JOHN C. PETERS remarked that one case of cavernous transformation of the liver had been reported to the Society, and that its history could be found on pages 25 and 26 of the third volume of the Transactions.

In Vol. III. of the Transactions six cases of occlusion of the ductus communis are reported.

NOTE.—The pancreas is very little liable to new-growths of any kind: cancer occurs, though rarely as a primitive growth; more often the tumor spreads from some adjacent part, such as the duodenum, stomach, or lymphatic glands. The retroperitonæal glands, near the head of the pancreas, and the surrounding connective tissue, are occasionally the seat of sarcomatous growths, which, becoming closely united with the pancreas and compressing its ducts, have been described as pancreatic disease, and is practically the same. Besides the lymphatic glands around it, the pancreas is also not inclosed in a capsule defined by a sheath of peritonæum, so that it is often difficult to decide whether a tumor partly in it, did or did not originate in its proper substance. This difficulty is much increased by the fact that the glands are almost invariably implicated also. It is certain that the glands alone may be the seat of cancer whilst the pancreas escapes, and this has led to the belief that the pancreas nearly always gets its disease by extension from the glands. But primary cancer of the glands is always *lymphoma*, while that of the pancreas is *carcinoma*. Occasionally the pancreas is simply indurated, and at times it shows in chronic thickening of the tissues about the bile-ducts.

The PRESIDENT presented, by card, a specimen of

ROUND-CELLED SARCOMA OF A KIDNEY, FROM A COW.

The Society then went into Executive Session.

STATED MEETING, FEBRUARY 23D, 1881.

DR. THOMAS E. SATTERTHWAITE, *President, in the Chair.*
DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF SPECIMENS PRESENTED.

1. Multiple fractures.
   Presented in behalf of a candidate by J. W. HOWE, M.D.
2. Aneurism of the arch of the aorta.
   Presented by D. M. CAMMANN, M.D.
3. Acute interstitial nephritis.
   Presented by MARY PUTNAM-JACOBI, M.D.
4. Report of the Committee on Microscopy.

DR. J. W. HOWE presented, on behalf of a candidate, specimens of

MULTIPLE FRACTURES OF THE UPPER AND LOWER EXTREMITIES—EXCISION AT THE ANKLE-JOINT AND AMPUTATION OF THE LEG.

The PRESIDENT remarked that operations for caries in middle-aged persons are more apt to be followed by bad results than in young subjects.

DR. HOWE referred to a case which he reported to the Society at a stated meeting in December, 1880. It was one of excision of the ankle-joint in a patient suffering from catarrhal phthisis. The wound healed, and the sinus was entirely closed for two days, then re-opened, a few spiculæ of bone escaped, and the sinus again closed. The patient finally died of osteo-myelitis.

The PRESIDENT remarked that Dr. Gibney's observations had been, and his own experience had confirmed it, that in many cases which had been recorded as recoveries, the patients subsequently died suddenly without known cause. It was so especially with regard to children.

DR. D. M. CAMMANN presented a specimen of

ANEURISM OF THE ARCH OF THE AORTA,

with the following history:

H. B. F——, aged forty-eight years, pier-master, twenty years ago had a hard chancre, and was under treatment for two years, but no secondary symptoms followed. Between 1863 and 1876, he had chronic dysentery, acquired while in the army; otherwise he had been in robust health. About two years ago he noticed slight dyspnœa following exertion, and since then the attacks of dyspnœa with stridulous breathing had increased in frequency and severity, and had sometimes lasted for several days. Six months ago he came under the care of Dr. A. H. Smith, when the vocal cords were found red and somewhat thickened, and the trachea which could be seen for three-fourths of an inch below the larynx was also red. Dr. Smith found some evidence of an intra-thoracic tumor, and iodide of potassium was given, with marked benefit at first, but later it ceased to have any effect.

For six weeks before death his breathing was more or less stridulous, and he was examined by Dr. Leaming with the following result: In the right infra-clavicular region the true respiratory murmur was heard; broncho-respiratory not much exaggerated; lack of motion over the lower part of the lung; over the upper part of sternum harsh sounds heard on respiration; rhythm of heart perfect; no displacement: lack of motion over the lower part of the left lung in front; breath-sounds feeble, especially at the upper part; sonorous respiration over the right lung behind, least marked over the lower half; at the base of the left lung, behind, very little motion; on the left side, behind, percussion note was flat, most marked at the base; over the upper half of the right lung, behind, percussion note was dull and raised in pitch; vocal fremitus was not very pronounced, but most marked over the left lung. There was a decided area of dulness to the right of the sternum, one inch below the clavicle; less marked in inspiration than in expiration, and vocal fremitus was most distinct at the same point. On percussion behind, the sound was projected into the stethoscope directly opposite in front.

Dr. L. diagnosed an intrathoracic tumor, probably an aneurism of the ascending aorta, with considerable exudation of plastic matter in the neighborhood; and, with a view to relieve the dyspnœa by causing the absorption of plastic material, the patient was twice put on small doses of calomel until the gums were touched; followed by moderate doses of iodide of potassium and belladonna, under which treatment the dyspnœa became markedly lessened.

February 9th.—Dyspnœa much worse for the past two days, with cough and slight mucous expectoration. Slight chill this afternoon, followed by fever and profuse sweating.

February 10th.—The stridulous breathing continued, but was less distressing. Respiration, 30; temperature, 99½° F.; pulse, 96. About two hours after, he suddenly became unconscious, and two and a half hours later his breathing was stertorous, deep, and somewhat irregular. The whole body was warm, moist, and flaccid; the eyes closed, mouth half open, cheeks sunken, and face slightly cyanotic; the pulse barely perceptible in both wrists, but heart regular.

Post-mortem examination, twenty-four hours after death, by Dr. Cammann; Drs. Leaming and A. H. Smith present—Rigor mortis well marked. A tumor occupied the upper part of the thorax behind and to the right of the sternum, closely adherent to the chest-wall in the neighborhood, except in front, but not agglutinated to either lung. There were no adhesions between the surfaces of the pleuræ, which were apparently in a healthy condition. The lungs crepitated between the fingers throughout. In the right lung, surrounding the root, were several small tumors, apparently fibrinous masses. There was slight hypertrophy of the left ventricle of the heart, but the valves were perfect. The ascending aorta was dilated, the internal circumference in the largest part being five and three-fourths inches; and on its wall were numerous calcareous plates, the largest measuring one and three-fourths inches in the longest diameter, and seven-eighths inches in the shortest: a few of them were so thick that they could only be broken by considerable force. The largest dilatation was in the first part of the transverse aorta, and involved the innominate artery. It contained a mass of laminated fibrin irregularly conical in shape, measuring in its largest circumference ten and one-fourth inches; and three and one-fourth inches on a line falling from the apex to the middle of the base, which was somewhat concave, and formed an arch beneath which the current of blood passed along the aorta. The mass also contained an opening through which the index finger could be passed, leading to the innominate artery. The tumor pressed upon the trachea behind and above the bifurcation. The subclavian artery of the right side was enlarged. The remainder of the transverse aorta was dilated, and contained large calcareous plates. The descending aorta was dilated, and contained calcifications to within an inch of its passage through the diaphragm. The brain was not examined.

The chief points of interest in this case were: 1, the large size of the fibrinous clot—nature's attempt at repair; 2, the few indications during life of the extensive changes that had taken place, for there were no signs of interference with the circulation, no paralysis of the vocal cords, no bruit, and no displacement of the heart.

SCARLATINAL NEPHRITIS.

DR. PUTNAM-JACOBI presented a specimen with the following history: A girl, aged seventeen, and previously healthy, contracted scarlet fever. The eruption covered her entire body within two or three hours after the first appearance of indisposition, and on the following morning had reached its maximum of intensity. During the first week, with the exception of the eruption, the case seemed to be a very mild one, the temperature at no time, with the exception of a few hours, when it was 104°

F., rising above 102° F. During the second week desquamation was exceedingly profuse, yet she seemed remarkably well. Not the slightest trace of albumen was found in the urine, and on the day previous to the appearance of symptoms of nephritis it contained no albumen, and the patient felt well. Exactly two weeks from the day in which the eruption appeared she was seized with a phlegmonous inflammation of the neck, increasing so rapidly in the course of a few hours as to threaten suffocation. On the same day the quantity of urine diminished very much, and was found to be nearly solid with albumen. The phlegmon was arrested by means of free incisions and leeching, but the nephritis persisted and progressed steadily toward a fatal termination, which took place on the tenth day, after the intercurrence of extensive broncho-pneumonia, and finally pleurisy.

The case presented many points of unusual interest, but I desire at this time only to call attention to the kidneys, which were considerably enlarged; the medullary portions were intensely congested, while the cortical substance was uniformly of a pale-yellowish color, indicating a diffuse degeneration. Numerous hemorrhagic foci were scattered throughout both substances. Microscopical examination revealed numerous hemorrhages, in addition to those visible to the naked eye, the effusion occupying the lumen of the tubes; or else Malpighian corpuscles, from which the glomeruli had disappeared. This destruction of glomeruli was a conspicuous feature of the case, for in every section of the cortex were found numerous empty spaces, which evidently had once contained glomeruli, but now showed no traces of them. The capsules inclosing these spaces were thickened and often lined by several layers of epithelial cells; and this proliferation of epithelial cells was also observed in capsules still containing their glomeruli. In many capsules the glomerulus seemed to have shrunk down toward the hilus of the corpuscle, leaving a large, clear space between the capillaries and the capsule; and in this space were lying many epithelial cells, evidently thrown off from the proliferating lining of the capsule. When the glomeruli were not so shrunk or compressed, they seemed enlarged; and in all cases the space inclosed by Bowman's capsule was larger than usual.

The thickened appearance of the capsule was repeated in the walls of the urinary tubes, both convoluted and straight; but it is probable that this thickening was apparent rather than real, as the duration of the disease had been quite insufficient to allow of the development of organized connective tissue. In fact, close examination showed that the thickened appearance of the walls of the tubes was caused by the tubes being pushed somewhat apart, the spaces between them containing small round-cells. In other words, the kidney offered the initial lesion of interstitial nephritis. This small-celled infiltration was also observed around the glomeruli, especially near the hilus; but only here and there was it very abundant; in no place sufficiently so to threaten the formation of an abscess. Its existence was noteworthy, because it does not enter into the description of scarlatinal nephritis, as given in the ordinary English text-books: thus Meigs and Pepper, and most recently Bartholow, describe an exclusively parenchymatous degeneration as the lesion characteristic of this disease. Such a degeneration also unquestionably existed in this case.

The epithelial cells were uniformly granular, and many of them were broken down. In some instances the cell-body was finely granular, while the nucleus remained distinct. In the straight tubes the epithelium was less affected than in the convoluted tubes; and in the loop tubes the epithelium was apparently normal. A number of tubes were blocked up with broken-down epithelial cells, but many of the straight tubes and the collecting tubes, particularly toward the apices of the pyramids, were entirely empty, and the tubes themselves extremely dilated. This denuded condition of the tubes and consequent cessation of obstruction would, on Dickinson's theory, explain the fact that, five days before death, under the influence of digitalis, the quantity of urine reached nearly the normal—the patient passing eighteen, twenty-six, and eighteen ounces daily. With the increase in the quantity of urine there was also a diminution in the percentage of albumen; and this fact, notwithstanding the persistence of uræmic nausea and dryness of tongue, led to an unduly favorable prognosis.

Dr. Putnam-Jacobi thought that the possibility of albuminuria depending upon serious hemorrhages into the kidneys was sometimes overlooked; the albuminuria being considered as an ordinary sequela of scarlet fever. Whether in the present case the great quantity of albumen in the urine was the expression of the hemorrhage into the kidney, or was simply due to transudation through denuded tubules, was an interesting question. The duration of the entire course of the scarlet fever was three weeks and three days; of which the last two days only were occupied by any perceptible symptoms of nephritis. In regard to these it was worthy of note that anasarca was entirely absent: the nephritis manifesting itself only by intense nausea and vomiting, and a uræmic dryness of the tongue, resembling the tongue of a bad typhoid fever.

Dr. Carpenter remarked, that in estimating the extent to which dilatation has taken place in the tubules of the kidney, it was important to keep in mind two things: first, positive dilatation; and second, apparent dilatation due to complete removal of the epithelium lining the tubules. He also thought that the excessive development of interstitial tissue described was an unusal occurrence in a case having no greater duration than the one reported by Dr. Putnam-Jacobi.

The President remarked, with reference to the presence of interstitial tissue in kidneys, that we should recognize the fact that this tissue actually exists to a limited extent in the kidneys of children: though when adult life is reached it has so diminished in quantity that only sufficient remains to hold the tubes, the blood-vessels, and the Malpighian bodies together. This interstitial tissue is not fibrillated, but homogeneous, although it contains lymphoid corpuscles throughout. It is a peculiar variety of connective tissue: the nearer the tip of a papilla the greater is the development; but when sections are made across the tubes at the apices of the papillæ a certain quantity of fibrous tissue can always be seen in kidneys removed at any period of life. And this is really fibrillated and not the ordinary sustentacular tissue just described: therefore, sections for microscopical examination to determine this point should be made through the cortical portion. With reference to albuminuria, he thought it might arise from a variety of causes, the number of which was large, and that we should discriminate carefully the differences. In the case reported by Dr. Putnam-Jacobi, it seemed eminently probable that the excessive albuminuria depended upon the hemorrhages into the kidney which thereby obscured the prognosis. But it appeared that the specific gravity of the urine was not taken, which he regarded as more important than simply testing for albumen in such cases. A persistently low specific gravity he considered as a much more important symptom in interstitial difficulties than the mere presence of albumen. But with reference to albumen being derived from the epithelial tissue of the kidney, he thought it was of frequent occurrence, and perhaps was a common cause of albumen in the urine in parenchymatous nephritis. Within the last six months he had performed an experiment with the view to determine whether or not the epithelial tissues are able to develop albumen in any considerable quantity; and, for that purpose, took a bladder that had been removed from the body of a patient who had just died, washed its inner surface carefully with water, and then removed the epithelium by scraping and allowed it to digest in water, kept at the temperature of the human body, for several days. He next filtered the fluid carefully through borated cotton, and on testing it, found that it contained albumen in abundance. The President, therefore, thought that it was important to recognize the fact that water remaining for a long time in the bladder might give rise to albumen which would appear in the urine.

After examining the specimen under the microscope, he remarked that he should not be willing to give an opinion with regard to the increase of interstitial tissue without further examination.

At the Stated Meeting, held March 9th, 1881, DR. PUTNAM-JACOBI had permission to add; that, since the presentation of the specimen she had ascertained that the existence of interstitial nephritis in scarlatina was recognized as being constant, in all serious cases, by most German authorities. Thus, Thomas, in "Ziemssen's Cyclopedia," describes it; but he also recognizes a superficial catarrh of the large tubes as the cause of the albuminuria in mild cases (similarly Birch-Hirschfeld). She was indebted to Dr. A. R. Robinson for calling her attention to some researches by Klein (communicated to the London Pathological Society in 1877), made on twenty-two cases of scarlatinous nephritis, in which death occurred at periods varying from the second, to the forty-fourth day. In all cases examined after a week's illness, interstitial nephritis was found; but Klein seems to consider this demonstration as rather novel, and says that Wagner and Biermer have each described a single case, but considered them quite exceptional. During the first week the lesions found were vascular; consisting in an infiltration of the intima of the blood-vessels, especially of the afferent arteries to the Malpighian corpuscles, with a hyaline substance. Klein regards this lesion identical with that of chronic Bright's disease. The initial lesion is in the Malpighian corpuscles; or, as Klebs has already described it, a "glomeruli-nephritis." This is further maintained, in a recent German essay by Ribbert, published at Bonn this year, who, indeed, undertakes to prove that all cases of nephritis begin in the glomeruli: in a proliferation and desquamation of the epithelium lining the capsule; possibly in a proliferation of the nuclei of the capillary tufts. By boiling the fresh kidney, or by hardening it in absolute alcohol, he has demonstrated the presence of coagulated albumen effused between the glomeruli and their capsules, and attributes this transudation of albumen to an alteration of the texture of the capillary walls. These lesions have been particularly conspicuous in cases of scarlatinous nephritis, where death had occurred before degeneration of the epithelium in the tubules had taken place. To such capsular transudation Ribbert attributes all albuminuria of the first stages, at least, of nephritis.

The lesions and the clinical history of my case well accord with these views. The shrinkage toward the hilus of the glomeruli within the distended capsules is exactly such as was observed both by Klebs and Ribbert; and employment of the method used by the latter might have also shown coagulated albumen filling the large, clear spaces left around the glomeruli. The proliferation and desquamation of the epithelium of the capsule were easily demonstrable on my specimens. The sudden onset of the symptoms coinciding with the enormous amount of albumen found in the urine, could be well explained by such a sudden giving way of the weakened walls of the glomeruli capillaries, as Ribbert describes. This author urges that all the various mechanisms, by which albuminuria has been experimentally produced, are such as must alter the nutrition of the walls of these capillaries; and thus permit of transudation of albumen, or, under a higher arterial pressure, of blood. The irritant of scarlet fever would act in this respect like phosphorus, carbolic acid, etc. The transuded albumen must interfere with secretion; at first by equalizing pressure, as is done when the ureter is tied; and afterward it may compress and even destroy the glomerulus. From the very first, therefore, we can infer that severe uræmic symptoms may arise, as in the case related.

The coincidence of uræmic symptoms with glomeruli-nephritis, and the absence of anasarca, even when the urine was seriously diminished in quantity for several days,, tends to confirm the remark of Bartels: that uræmia always depends on lesion of the glomeruli; while anasarca comes from lesion of the medullary tubes. In my case there was certainly extensive parenchymatous degeneration of those tubes; but it would seem as if, in order for that to be efficient in the production of anasarca, the functions of the cortical portions must be intact. Whenever disease first invades the cortex, uræmic symptoms are liable to appear without previous warning by the presence of anasarca: whenever the medullary portion is first attacked, the lesion is indicated by anasarca, and the patient may throughout remain absolutely free from all symptoms of uræmia.

REPORT OF THE COMMITTEE ON MICROSCOPY.

Dr. Wm. H. Porter submitted the following: The cast of a bronchial tube presented by Dr. Van Gieson, December 10th, 1880, was composed of fibres interlacing each other, and within the meshes thus formed were numerous round-cells. At some parts the membrane was perforated, as if for the escape of fluid from the bronchial glands.

The specimen presented by Dr. Tauszky, October 27th, 1880, of supposed membranous dysmenorrhœa, showed in some parts nothing but fibrillated fibrine, holding in its meshes numerous small round-cells, probably lymphoid in character, and also epithelial cell-elements. Other portions were made up of irregular shreds, in which were seen small blood-vessels distended with blood-corpuscles, surrounded by numerous round-cells and epithelia. Fragments of the uterine glands were also seen, and when cut transversely their lumen was found filled with a finely reticulated substance: hence the specimen may justly be regarded as representing a partial exfoliation, at least, of the mucous membrane of the uterus.

The Society then went into executive session.

STATED MEETING, MARCH 9TH, 1881.

DR. T. E. SATTERTHWAITE, *President*, in the Chair.
WESLEY M. CARPENTER, *Secretary*.

LIST OF CASES AND SPECIMENS PRESENTED.

1. Arsenical poisoning....................By the PRESIDENT.
2. Cancer of the dura mater and lungs.....By DR. A. JACOBI.
3. Round and spindle celled sarcoma of the leg and thigh. By DR. GEO. L. PEABODY.
4. Aneurism of the abdominal aorta bursting behind the peritoneum......... ....By DR. GEO. L. PEABODY.
5. Aneurism of the thoracic aorta..BY DR. GEO. L. PEABODY.
6. Fissure of the skull and pachymeningitis. By DR. WM. H. PORTER.
7. Carcinoma of the pancreas, liver, peritoneum, and retroperitoneal glands, with peritonitis. By DR. WM. H. PORTER.
8. Fibro-sarcoma of the breast.............By DR. A. JACOBI.
9. Chronic valvular disease of the heart—adherent pericardium. By DR. BEVERLEY ROBINSON.
10. Œdema of the larynx, occurring with chronic albuminuria. By DR. BEVERLEY ROBINSON.

THE PRESIDENT presented, in behalf of a candidate, specimens removed from a man who died from

ARSENICAL POISONING.

DR. A. JACOBI presented, in behalf of a candidate, a specimen of

CANCER OF THE DURA MATER AND THE LUNGS.

Dr. George L. Peabody presented microscopical sections of the tumor, and the dried bones from a case of

ROUND AND SPINDLE CELLED SARCOMA OF THE LEG AND THIGH.

William D. W——, aged nineteen; U. S.; single; clerk; was admitted to the New York Hospital, December 10th, 1880. He and his father had always been healthy; but his mother died of phthisis some years ago. Four months ago he felt pain in the right popliteal space, not accompanied by any swelling or redness, but constant and dull in character, and causing no other disability than a slight limp. This pain grew gradually worse for a month, when he noticed a slight enlargement at the knee, without any tenderness or redness, which was supposed to be rheumatic, and he was treated accordingly; but the swelling steadily increased, and three weeks before admission it became very tender to pressure: the skin was bluish, the superficial veins prominent, and œdema of the foot developed, while sharp spasms of pain became very annoying. A few days before admission a hypodermic syringe was introduced into the mass, and clear serum was withdrawn, followed by a constant oozing from the site of the puncture.

On admission his general condition was poor; pulse feeble and rapid; he was much emaciated and very anæmic; but the pain in the leg was not severe unless disturbed. Examination showed his left leg to be the seat of a fusiform swelling, which extended from six inches above the knee to the beginning of the lower third of the leg. In various spots fluctuation was detected, and it was very tender. Its greatest circumference was at a level with the knee-joint, where it measured 20½ inches; while the girth of the sound knee was only 13½ inches. The leg and foot were very œdematous; but there was no enlargement of the lymphatic glands in the groin.

On the day following his admission, the limb was amputated in the upper third of the thigh. Considering his condition at the time of the operation, he made a good recovery, and was discharged on March 8th.

The swelling was found to contain numerous discrete masses of encephaloid material, varying in size from a chestnut to a turkey's egg; partly in the intermuscular septa, and partly occupying the place of muscular tissue that had apparently been destroyed by pressure. These masses contained numerous cysts of different sizes, filled with serous fluid of a yellowish-brown color. The highest point reached by the growth was on a level with the knee-joint posteriorly; above that the tissues were normal. The neoplasm had evidently originated in the periosteum, which was in many places raised from the tibia, and much thickened. There were, in spots, small fragments of bone in the mass, indicating that ossification had taken place to a slight extent; and the denuded portions of the tibia were rough and porous.

The *microscopical examination* of the growth showed it to consist almost entirely of round and spindle cells, with very distinct nuclei and nucleoli. Some of the round cells were about the size of lymphoid cells, and lay side by side, supported by a stroma of very fine connective tissue: many were about three times the size of white blood-corpuscles, and others very much larger. The tumor was not very vascular.

Remarks.—These facts would place the tumor in the category of the sarcomata. I place upon the table for your inspection microscopic specimens of the neoplasm and the bones of the amputated limb. You will see that for a space of nearly six inches below the knee-joint the compact tissue of the tibia is in great part destroyed; the parts of it that are left being very porous and spongy. The femur was not affected.

DR. PEABODY also presented a specimen of

ANEURISM OF THE ABDOMINAL AORTA BURSTING BEHIND THE PERITONEUM.

W. S——, aged forty-eight; Irish; married; a gardener, with no history of syphilis, was admitted to the New York Hospital December 7th, 1880. At intervals for a year past he had noticed sharp pains in the lumbar region; and a tumor in the left groin, with no local pain or tenderness, appeared four months ago. Of late he had suffered from nausea and vomiting, accompanying the paroxysmal pain in the lumbar region.

On admission, his general condition was fair; though weak, he had a good pulse. On the left side, in the dorsal region, on a level with the tenth rib, was a swelling which pulsated synchronously with the action of the heart, and could be traced by percussion and palpation down to the crest of the ileum. No bruit could be detected in it, but the heart-sounds were heard throughout the extent of the tumor. There was no difference in the femoral pulses, and their force bore a normal relation to that of the radial. There were no cardiac murmurs, but some hypertrophy was made out. He complained of what he called a "dead feeling" over the anterior and internal aspects of left thigh, and the pain in the lumbar region had become constant and severe. His urine was normal.

He was given opiates at night, kept quiet in bed, and put upon potass. iodid. and tincture of digitalis, when the pain in the back became less severe; but a severe pain in the left thigh soon manifested itself, and he began to keep the limb constantly semiflexed. For three weeks there was no material change; then the pains became severer, the tumor increased slightly in size, he began to have a slight elevation of temperature, the lymphatic glands in the left groin became enlarged, he grew gradually weaker, and had several severe attacks of dyspnœa. By January 4th he had become very feeble, and at 6.10 A.M., on the fifth, he died suddenly in collapse, after a severe attack of dyspnœa.

Autopsy.—Thirty-two hours P.M. Body emaciated and anæmic. Rigor mortis not marked. Superficial veins of the legs and thighs full of blood. Slight œdema of the left leg and foot.

The peritoneum contained about ℥ ij. of serum, but there was no peritonitis. Completely filling the posterior part of the left hypochondriac and lumbar regions, and extending thence into the iliac fossa *behind the peritoneum*, was a soft, dark-colored, fluctuating mass, raising the peritoneum about three inches from the subjacent abdominal wall. Above the diaphragm in the posterior mediastinum, and coming from below between the crura, was a semi-solid mass forming a tumefaction about as large as a fist.

Remarks.—It is seen here that this tumefaction is an aneurism of the abdominal aorta arising between the crura of the diaphragm and extending downward over a vertical space occupied by four vertebræ. On the right side the sac, as you see, extends two inches from the median line, and on the left side about four;

lying in this situation upon the tenth, eleventh, and twelfth ribs. Just beneath the upper part of the left kidney the sac had ruptured and poured blood freely into the sub-peritoneal tissue, causing the tumefaction above described in the abdomen. The aorta, both above and below, was very atheromatous. The bodies of the tenth, eleventh, and twelfth dorsal, and first lumbar vertebræ are extensively eroded: also the eleventh and twelfth ribs, the latter being completely divided at a point about an inch from its head. The spinal canal was not opened. The upper part of the aneurism is full of laminated clots; the rest, as well as the retro-peritoneal tissue on the left side, is filled by recently coagulated blood.

DR. PEABODY also presented a specimen of

ANEURISM OF THE THORACIC AORTA.

It was interesting chiefly from the fact that the patient was entirely unaware of the existence of anything unusual in his chest. J. F——, aged sixty-nine years; U. S.; single; no occupation; had had three calculi removed by crushing within sixteen years, the last two by Bigelow's method within a year. He died three days after the last operation; nothing having been known to be abnormal in his chest.

Autopsy.—On the left side, beneath the costal cartilages of the first, second, and third ribs, was a solid tumor, rather larger than a hen's egg; in part covered by pericardium, while the left lung was adherent to it. The tumor, together with the heart and aorta, I show you here. The heart is normal in size; the mitral valve is much thickened, there being a calcareous deposit in its posterior segment along the attached border. The aortic valve is also thickened. One coronary artery has rather a high origin. The tumor proved to be an aneurism of the anterior wall of the arch of the aorta, beginning one inch below the origin of the innominate, and extending as far as the origin of the left subclavian artery. It communicates with the aorta by a circular opening about an inch in diameter. The interior of the sac is lined by laminated fibrin about one-half inch thick; the rest is filled by recent coagula. The aorta is atheromatous throughout its entire extent. In the abdominal aorta are two ulcers covered by a layer of recent fibrin.

FISSURE OF THE SKULL—PACHYMENINGITIS.

DR. WILLIAM HENRY PORTER then presented the brain and membranes of a patient with the following history, furnished by the house physician, Dr. Whetmore.

C. G——, aged forty-seven years; German; brewer; single, was admitted to the Presbyterian Hospital, November 3d, 1880. The patient was found lying in a vacant lot, and was carried to the hospital in an ambulance. On admission, he experienced some difficulty in walking and appeared stupid, but said he felt no pain and soon fell asleep. No external head injury was detected; the pupils and temperature were normal; pulse 70. Nothing unusual was noticed during the succeeding night, but in the morning he passed both fæces and urine involuntarily. After being awakened to take nourishment, he immediately fell asleep; and when aroused he made no complaint of pain. Examination of his urine gave: color, amber; reaction, acid; specific gravity, 1.024; phosphates, but no albumen. On November 7th, no special changes in the symptoms were noted. On the following morning, however, he was nearly comatose, and the left pupil was contracted, the right dilated. The left leg and arm were not moved voluntarily, but only when irritated by the prick of a pin or the application of the battery; in fact the motor excitability was less marked on the left than on the right side. His breathing was slightly stertorous, pulse full and slow; temperature 98¾° F. On the 9th there was complete left hemiplegia and probably right facial hemiplegia, although this point could not be fully determined. There was perfect coma; the right pupil was widely dilated, the left contracted to a pin-hole; stertorous breathing; unilateral sweating of the right side; involuntary passage of urine; temperature, 99° F.; pulse, full but more rapid. On the 10th, all the symptoms were intensified; the coma was more marked, there was complete stertorous breathing with puffing out of the cheek on the left side; the right pupil still widely dilated and the left completely contracted. The folds of the left side of the face were relaxed. The pulse had increased in frequency. Temperature, 99.5° F.; with profuse sweating, and he was unable to swallow. At five o'clock P.M., the temperature had risen to 104° F., and he was still sweating profusely. Pulse weak and rapid; and he died in complete coma at 7.20 o'clock P.M.

Necropsy sixteen hours after death. Rigor-mortis well marked.

Thoracic cavity.—Absolutely no fluid in the pericardial sac: and only a very little dark liquid blood in the left side of the heart; on the right side the heart-cavities were about half full of fluid blood, but no distinct coagulum was found on either side. Valves free and healthy. Weight of heart nine and one-half ounces, which was slightly under the normal for a man of his build; it was flabby, and microscopically showed slight evidences of fatty degeneration. The central portion of the base of the left lung was adherent to the diaphragm, otherwise free; weight, only ten ounces; slight œdema of the lower lobe. The right lung was quite firmly adherent throughout its whole extent; and there was a little induration at the apex—the so-called "fibrous phthisis;" with slight hypostatic congestion of the lower lobe: also slight bronchitis, evinced by the escape of muco-purulent fluid from the cut ends of the bronchi. Weight of the right lung, fifteen and one-half ounces.

On the right side there was an ununited fracture of the third rib, within three inches of the costal end.

Abdominal cavity.—The large intestine was moderately distended with gas; the small intestines were collapsed, small, and hard: the contents were fluid fæcal matters, and no obstruction or special inflammatory action was noticed. The *stomach* exhibited slight evidences of chronic gastritis. The *spleen* was very firmly adherent to the splenic flexure of the colon and was very soft, almost gelatinous; weight, four and one-half ounces, or two and one-half ounces under the normal. The *bladder* was empty and the ureters free. The *left kidney* weighed, with the attached fatty capsule, five ounces. The *right kidney*, freed from its fatty capsule, weighed five ounces. The capsules of the kidneys were non-adherent, and appeared about normal in thickness; but both glands were congested, and their epithelia looked fatty to the naked eye: microscopically, they were found to be in a state of chronic diffuse degeneration, the morbid changes being most marked in the epithelial structures. The *liver* weighed only twenty-six ounces; its surfaces were smooth: none of the naked eye appearances of cirrhosis were present, but when cut, it was found very hard, and almost creaked under the knife. The cut as well as the external surfaces were studded with numerous pale spots, which were found, upon microscopical examination, to be due to fatty degeneration of the epithelia. There was also evidence of cirrhosis in the shape of increased interstitial tissue.

Head.—The bones of the cranium were very thick. The dura mater was deeply congested, and the portion covering the convexity of the right hemisphere was firmly adherent to the brain-substance; and upon incising the right side, a large mass of clotted blood was discovered covering the whole hemisphere. The upper part of the clot was firmly attached to the overlying dura; while that portion covering and lying in immediate contact with the brain-substance was partially decolorized and seemed to be partly organized; the middle portion appeared to be laminated, while the remainder was more fluid as the dura was approached. The left dura presented a remarkable appearance, the internal surface being mottled, as it were, with dark coagula, which seemed to be within its substance. The convexity of the *brain* was congested, but the ventricles contained no fluid. The point of special importance was a fissure of the cranium, extending from the parietal boss down and into the apex of the petrous portion of the temporal bone. This fissure was nearly opposite the *hæmatoma,* and it was inferred that the injury was received at the same time the rib was fractured.

Dr. Porter remarked that fissures of the skull might, as was well known, exist for some time, and give rise to a hæmatoma or its equivalent, pachymeningitis interna. In such cases an inspection of the bone might not detect the fissure, and the patient might live a long time, or even become apparently convalescent.

NOTE.—In Vol. I. of the Transactions, pages 33 to 41, several very interesting cases of undiscovered fissure of the skull are recorded.

CARCINOMA OF THE PANCREAS, LIVER, PERITONEUM, AND RETRO-PERITONEAL GLANDS WITH PERITONITIS.

Dr. Porter also presented a specimen of cancerous pancreas, liver, and retroperitoneal glands, from a patient who had recently died in the Presbyterian Hospital, during the consecutive services of Drs. Alexander Hadden and A. H. Smith. Dr. John A. Wells, House Physician, furnished the following history :

J. B——, sixty years of age; Irish; a widower; was admitted January 11th, 1881. His family history was good, and special inquiry as to the prevalence of cancer in any branch failed to discover evidence of the disease. He had been intemperate, but denied venereal disease. His first symptoms of illness appeared in the early part of December, 1880, when he felt a general depression, began to lose strength and weight, and on the 22d he was suddenly seized with cramps in the epigastric region, and a sharp diarrhœa. His bowels remained loose after that ; his prostration continued, and there was a constant feeling of soreness in the epigastrium with occasional nausea. In other respects he was free from pain and was not jaundiced.

The heart and lungs were normal. The liver-dulness, however, extended from the fourth right intercostal space to two and one-half inches below the free border of the ribs. The abdominal surface was tender, there was slight tympanites, and a gurgling sound could be detected when the ear was applied to the part. His tongue was heavily furred; temperature and pulse normal. The urine had a specific gravity of 1.016, an acid reaction, and amber color; chemical and microscopical examinations gave negative results.

On the evening of January 13th, 1881, the temperature was 99.5° F., otherwise the symptoms remained about the same. He usually had two light-colored semi-solid passages daily. Tongue clean, appetite still poor, but abdomen less tender. Several nodules were felt upon the surface of the liver, through the abdominal walls ; and there was one hard, movable lump, about the size of a hickory-nut, just outside the right external abdominal ring, which, by invaginating the scrotum, could be easily pushed back into the inguinal canal. When the tympanitic distention of the abdomen became excessive, it was relieved by enemata containing oil of turpentine. The liver did not apparently enlarge in size while in the hospital, but the surface-nodules became more prominent, and the edges of the liver more rough. He gradually became more emaciated, and his conjunctivæ quite yellow. The passages, also, were more profuse and watery, ranging from five to eight in the twenty-four hours. No remedies had any effect in arresting or even checking this profuse diarrhœa, and he died January 18th, 1881, of exhaustion.

Necropsy, by Dr. John A. Wells, fifteen hours after death. Rigor mortis well marked; body very much emaciated; skin jaundiced.

Pericardium and heart.—The heart-sac contained four ounces of straw-colored serous fluid. There was one small milk patch over the anterior surface of the right ventricle. The heart weighed ten ounces and was soft and flabby.

Pleura and lungs.—The left lung was freely movable in its pleural sac, but the superior lobe was partly collapsed and devoid of air, while the inferior lobe was slightly congested. The right lung was somewhat adherent posteriorly, and slightly œdematous, with hypostatic congestion in the dependent portions. Weight of the left lung fourteen ounces; of right lung twenty-four ounces.

Abdominal cavity.—The enlarged and irregular surface of the liver could be felt through the abdominal parietes. A tumor about one inch in diameter was also quite noticeable at the right external abdominal ring. When the abdomen was opened, thirty ounces of fluid were removed from the peritoneal cavity. The surface of the peritoneum was studded with small white tumors of almost stony hardness, varying in size from a millet-seed to that of a large pea; and there were three large tumors in Douglas's pouch, covered by a distinct layer of lymph.

The Spleen was firmly adherent to a large neoplasm involving the tail of the pancreas, and like the peritoneum was covered by many small nodules.

Kidneys.—The left, like the spleen, lay against the neoplasm, and its capsule had become so firmly united to the morbid mass that a thin and superficial layer of the kidney was torn off in the removal of the organ; but the main body of the kidney did not seem to be infiltrated with the new growth. The capsules were non-adherent, and normally thin. The kidneys were congested, their weight was seven and one-half ounces each, and the epithelia looked fatty. The right gland presented the same gross appearances as the left, excepting the involvement by the neoplasm. The bladder was distended with urine; the trigone deeply congested; otherwise the urinary tract was normal.

Alimentary tract.—Upon attempting to remove the colon, the splenic flexure was found so firmly bound to the new growth in the pancreas that it could only be removed by severing the intestinal wall or the growth. In the centre of the neoplasm there was a cavity which evidently communicated with the lumen of the bowel during life, as the intestinal wall was wanting at this point.

The Liver was greatly enlarged, from the presence of numerous white masses, varying in size from a small pea to a hen's egg, and weighed one hundred and ninety-three ounces. The centre of many of the larger nodules contained fluid, tinged yellow, probably by bile-pigment.

Pancreas.—The tail of the pancreas was the point of interest, being occupied by a new-growth about three inches in diameter, in the centre of which was a cavity, the area of which was equal to about one-half of the whole mass. There was a free communication between this cavity and the lumen of the colon at the splenic flexure: the excavation contained some fecal matter, and its walls presented a ragged and sloughing condition. The head of the pancreas was free from any new-growth, and was to all appearances healthy. Extending from the new growth, however, along the superior border of the pancreas to the liver, there was a chain of small tumors, two of which, situated in the transverse fissure of the liver, were about one inch in diameter.

Microscopical examination.—The growth in the pancreas gave marked evidence of *scirrhous carcinoma* in the shape of dense fibrillated connective-tissue bands, forming irregular alveolar spaces, which were filled with large nucleated epithelial corpuscles, packed together without any reference to order of arrangement. The only difference between the main growth in the pancreas and the many surrounding smaller nodules, was a more abundant epithelial development and less of the fibrous elements in the latter.

Brain.—Nothing abnormal worthy of note was detected.

FIBRO-SARCOMA OF THE BREAST.

Dr. A. Jacobi presented a tumor which he had removed from the right mamma of a girl seventeen years of age, who, a little more than a year ago, presented herself with a small and very hard swelling in her right breast, near the axillary line, scarcely of the size of a hazel-nut, and not painful. She had had it for some time, and could not give any reason for its existence. He regarded it as the result of slight local mastitis, produced, perhaps, by pressure from her corset, and began local, and after a time, general treatment. Tincture of iodine, iodoform ointment, and collodion were used, but as the nodule did not disappear, she took iodide of potassium for some time, with little effect, and ceased attendance. Some time afterward, when the tumor had reached the size of half a walnut, he again recommended a line of treatment, but she soon disappeared. Thus he saw her occasionally until ten weeks ago, when not having seen her for nearly three months, she came again, and he was surprised to find nearly the entire mamma a solid mass, and an axillary gland upon the same side swollen. A question of diagnosis then arose: it was probable that he had to deal with a malignant tumor and glandular axillary swelling; or it was possible that the old tumor remained and was accompanied by mastitis and a glandular swelling in the axilla of a benign character.

Dr. Jacobi proposed to remove the breast if the use of the galvanic current for one week produced no favorable effects. He used an ordinary small battery, sent a current from fourteen or sixteen cells as much as possible through the tumor, in daily sittings of seven or eight minutes' duration, and within one week the swelling was reduced in size about one-third. This treatment was continued, and at the end of the second week the tumefaction had been lessened in size about one-half, and the glandular enlargement in the axilla had disappeared. The same plan was pursued for four or five weeks more, when the tumor remained stationary, being about the same size as it had been four or five months previously.

The treatment with galvanism was not adopted with the expectation of removing any malignant disease, but for the purpose of reducing the inflammatory swelling and giving the patient the benefit of the doubt with regard to diagnosis. When the tumor became stationary Dr. Jacobi removed it. He found it to be encysted, and, upon microscopical examination, sarcomatous in character, consisting of round and spindle-shaped cells and a large amount of stroma. It was possible that more tumors of the same character which are sometimes erroneously called adenomatous, were developing; for upon the same side, near the sternum, there were two hard spots, and several more in the left mamma. It is not very uncommon for several nodules to develop in the same breast, but this is not so frequent in the mamma of a young person; hence the interest in the specimen. The immediate removal of the other tumors would be a proper plan of treatment.

Dr. Peabody said he had lately made an autopsy on the body of a woman who was operated upon last August for a fibro-sarcoma of the mamma, which was then gangrenous nearly all the way from the external surface to the muscles of the chest. A number of portions, however, remained sufficiently intact to permit a satisfactory microscopical examination, which proved that it was a fibro-sarcomatous tumor. The woman made a slow but apparently complete recovery; but in November last the disease recurred in the cicatrix, and about ten days ago the tumor had involved an area fully six inches in diameter, of which two or three inches were again gangrenous and sloughing. This second growth was removed, but the patient died within thirty-six hours after the operation. The second tumor was distinctly of a more malignant type than the first, containing a much larger proportion of cell elements. The autopsy revealed metastatic deposits in both lungs, in the occipital lobe of the left hemisphere of the brain, and besides there were large masses in the left lumbar and inguinal regions. The woman was between forty and fifty years of age, and the growth had been in existence several months before the first operation.

Dr. Beverley Robinson asked whether metastatic deposits were not generally more malignant than the original tumor.

Dr. Peabody believed that there should be no confusion, microscopically, between sarcoma and adenoma of the breast, because the growths, in their ultimate elements, are essentially different. The prognosis also is different, for although adenoma may recur, it is not nearly so apt to do so as sarcoma, and is not followed by metastatic deposits.

Dr. Jacobi remarked that the tumor which he had presented was evidently a sarcoma. He used the term adenoma simply because, even now, the one was frequently mistaken for the other, although that was inexcusable, as stated by Dr. Peabody. There was no doubt, when a return of the disease occurs, that the neoplasm is more malignant than the original growth. That common adenoma, sometimes erroneously called fibro-sarcoma, did not return after removal, was the ordinary experience of surgeons.

CHRONIC VALVULAR DISEASE OF THE HEART—ADHERENT PERICARDIUM.

Dr. Beverley Robinson presented a heart which, with the pericardium attached, weighed thirty-two ounces. There was hypertrophy of the right, and hypertrophy and dilatation of the left ventricle. The hydrostatic test showed free tricuspid regurgitation, slight mitral leakage, and very free aortic regurgitation. The aortic orifice was stenosed; its valve leaflets were thickened, congested and retracted; a small valvular aneurism existed in the posterior leaflet, and one leaflet was fenestrated. The mitral valve was thickened and smooth. The chordæ tendinæ were fused together, and their fleshy columns were atrophied. The pericardial cavity was obliterated by old adhesions.

The kidneys were the seat of chronic congestion, as also was the liver and spleen. The right pleural cavity was obliterated by old adhesions; the left contained much fluid. The lungs showed a moderate amount of brown induration, and were somewhat œdematous.

The *autopsy* fourteen hours after death was made by Dr. Maxwell, Curator. The history was furnished by Dr. Merriam, House Physician. Charles M——, aged twenty-seven years, had had rheumatism, was admitted to Charity Hospital on the 12th of February, and on examination cardiac hypertrophy with three murmurs were diagnosticated: namely, tricuspid regurgitant, mitral regurgitant, and aortic regurgitant. He was well-nourished and apparently healthy. On the evening of the 13th he cried out to the watchman that he could not breathe, and within fifteen minutes was dead.

The point to which Dr. Robinson directed special attention was a decided *elevation* of the intercostal space synchronous with the apex-beat, in a case of completely adherent pericardium.

Dr. Robinson also presented a specimen of

ŒDEMA OF THE LARYNX, OCCURRING WITH CHRONIC ALBUMINURIA.

D. Mc——, aged forty-two years; native of the United States; a carpenter; was admitted to the Charity Hospital, February 2d, and died February 24th, 1881.

History.—Patient denied having had venereal disease, but has been a hard drinker, and has had slight attacks of dysentery for the past four or five years. He gave the history of an acute attack of Bright's disease fifteen years ago, and said that four months ago he went upon a prolonged spree and afterward was obliged to work in all kinds of weather, often substituted drink for food, and continually "took cold." Ten days ago his legs and hands began to swell; the swelling coming on suddenly during the night, and his scrotum soon after became œdematous. He thinks he is passing the normal quantity of urine. Appetite poor. Bowels regular.

General condition.—The patient appears suffering with general anasarca; his left arm is much more swollen than the right. When sitting up with both arms in the same position, the space immediately above the clavicle is much more marked on the right side than on the left; but there was no œdema of the cellular tissue on either side at this point. Pulsation was more marked in the right carotid than in the left. The pulse at the wrist was much feebler on the left side than on the right. Sight was lost in the left eye and imperfect in the right: this loss of vision came on suddenly about two weeks ago. Hoarseness set in unexpectedly on February 18th, with a peculiar shrill, harsh cough, and purulent expectoration. He complains of severe pain over the left mastoid process, neuralgic in character, with some œdema there.

Physical examination revealed dulness at the base of both lungs; prolonged expiration at the apex of the left lung in front; subcrepitant râles at the base behind; râles heard on coughing; and there was feeble respiration over both lungs behind.

Heart.—Doubling of the first sound at the apex, heard more distinctly over the mitral orifice.

The abdomen contained a small quantity of fluid.

Larynx.—Shows pink color of both vocal cords, moderate infiltration of the arytenoid cartilages, and at the commissure. During ordinary respiration the vocal cords do not leave the median line as much as normal. In saying a, e, and h, in phonation, the vocal cords approximate imperfectly, and leave between them posteriorly a triangular gap with the base looking backward. No ulceration anywhere, and epiglottis normal.

Eye.—Examination by Dr. Cullan. Swollen disk, tortuous vessels, with here and there small hemorrhages, more marked in the left eye than the right.

Urine.—Albumen in large amount. No casts.

Autopsy by Dr. Putzel.—Cardiac hypertrophy, œdema, atelectasis and hypostatic pneumonia; chronic diffuse nephritis; œdema, and anæmia of brain.

The point to which Dr. Robinson directed special attention was the existence of œdema of the larynx in connection with chronic Bright's disease.

Dr. Jacobi thought it probable, as such a combination was very rare, that there was something in the history of the patient which facilitated the occurrence of œdema in that locality. If œdema occurred in the larynx, it was not extraordinary that it should take place in the aryteno-epiglottic folds where the submucous tissue is so abundant. In common cases of pharyngitis, particularly those with œdematous swelling; and also, in diphtheritic cases, it was not uncommon that just that locality became the seat of œdema; again in a number of cases of so-called croup, when the vocal cords are paralyzed and the voice is retained, we have to deal with nothing except œdematous softening in this exact neighborhood.

With reference to œdema of the larynx being an uncommon occurrence in chronic nephritis, he thought there was something in the history of the case by which it could be explained. He would direct Dr. Robinson's attention to what has lately been found in a small number of cases: now and then small cicatricial indurations have been found following diphtheritic symptoms; very small cicatrices, but sufficient to give rise to hoarseness, and occasionally to dyspnœa and attacks of œdema. If, upon microscopical examination of this specimen, any induration was found, then we might suppose that a local cicatrization, the result of an old inflammation, or some other disease might be the cause of the œdema that occurred in the case.

Dr. Robinson remarked that so far as his observation with the laryngoscope extended he had rarely met with œdema of the larynx that caused considerable dyspnœa, or suggested tracheotomy, except in cases of pulmonary phthisis.

Note.—Œdema of the larynx is not very uncommon in so-called erysipelatous inflammation of the pharynx.

The Society then adjourned.

STATED MEETING, MARCH 23d, 1881.

Dr. T. E. Satterthwaite, *President, in the Chair.*
Wesley M. Carpenter, M.D., *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Dilated stomach, and chronic cardiac disease. By Dr. R. T. Bang.
2. Adhesive pericarditis and tuberculosis. By Dr. W. H. Porter.
3. Cerebro-spinal meningitis.........By Dr. G. L. Peabody.
4. Specimens preserved in Wickersheimer's fluid. By Dr. G. L. Peabody.
5. Central mixed spindle and round celled sarcoma of the head of the tibia, with early metastatic deposits in the lower epiphysis of the femur. By Drs. E. C. Wendt and F. Lange.

6. Tricuspid regurgitation......By Dr. Beverley Robinson.
7. Fibro-chondroma over the tuber ischii.
   By Dr. Lewis A. Sayre.
8. Filaria loa and pulex penetrans..
   By Drs. W. R. Birdsall and R. M. Bachelor.
9. Gangrenous dysentery, with perforation of the colon.
   By the President.
10. Dysentery; perforation of the colon and bone encysted in the lung ....By the President.
11. Osteo-cholesteatoma of the Sylvian fissure.
    By the President.
12. Cancer of the dura mater—Cancer of the lungs.
    By Thomas D. Swift, *Candidate.*
13. Delirium tremens—arsenical poisoning—cerebral meningitis —special implication of the spleen.
    By John A. Wells, *Candidate.*
14. A four-month fœtus, bearing the imprint of mechanical means used to cause abortion.
    By T. R. Chambers, *Candidate.*
15. Multiple fracture of the upper and lower extremities—excision of the ankle-joint and amputation of the leg.
    By Robert Müller, *Candidate.*
16. Report of the Microscopical Committee.

DILATED STOMACH—CHRONIC HEART DISEASE.

Dr. R. T. Bang presented the stomach and heart of a man who died in St. Luke's Hospital; with the following history:

Bernard St. M——, forty-five years of age, gardener, Germany, admitted March 7th, 1881. Dr. G. G. Wheelock, attending physician. Family history good. Eighteen years ago he had an attack of rheumatism, but none since. A winter cough had annoyed him more or less for many years, and during the last twelve months this cough has been continuous. Four months ago he began to suffer from dyspnœa, and since then has had frequent attacks of it. Seven weeks ago his feet began to swell, and the œdema has been gradually extending upward since. For the past two weeks he has had occasional pains over the heart. His expectoration is quite profuse: at first his sputa were white, now they are brownish and streaked with blood. Within the last three weeks he thinks he has been passing less water than normal, but urinates three or four times every night. He has no headache; but complains of flatulency and pain over the stomach and bowels; worse after eating. His appetite is good, but he vomits almost everything he takes. Bowels constipated. Has marked orthopnœa and insomnia.

On admission he was fairly well nourished. His face and hands, by their dusky appearance, gave evidence of an impeded circulation, and dyspnœa and orthopnœa were both present. The lower extremities were markedly œdematous, and large ecchymotic patches were visible on the calves. There was a reducible, oblique inguinal hernia on the right side. Physical examination disclosed the presence of a double aortic murmur and of pulmonary œdema.

He was cupped, and his legs were pricked with a large round needle. Pulvis purgans and infusion of digitalis were administered, and a light but most nourishing diet was given him.

March 8th.—The patient passed the night in a chair, sitting up alongside his bed. His bowels were moved freely several times. A considerable quantity of fluid escaped from the pricks in his legs. A sphygmographic tracing of his radial pulse showed marked dicrotism.

March 9th.—Condition of the patient unchanged, except that the œdema of the lower extremities has gone down considerably, owing to the escape of serum from the needle-pricks.

Examination of urine.—Specific gravity, 1.038 ; reaction acid ; albumen, twenty-five per cent by bulk ; no casts, nor sugar, but the urine is very high colored.

March 10th.—Patient's dyspnœa, cyanosis, and orthopnœa are steadily increasing in severity. The lungs are becoming more waterlogged.

March 11th.—Died at 7 A.M., of asphyxia due to œdema of the lungs. A urine record was kept, and showed that he passed between twenty and thirty ounces of water daily.

March 12th, 9 A.M.—*Autopsy* twenty-six hours after death : rigor mortis marked. Œdema of the lower extremities extending upward as far as the groins. An inguinal hernia on the right side.

On opening the abdomen, the first disclosure made was the presence of a dilated stomach, shaped like a goose-necked squash. Its transverse diameter measured twelve and a half inches, and its vertical diameter at the cardiac end, six inches: its pyloric end was depressed and reached downward into the right inguinal region on a level with a line drawn two inches below the anterior superior iliac to the spinous processes. The pylorus lay in the longitudinal fissure of the liver: the upper margin of its cardiac end reached up to the lower border of the fifth rib along the left mammillary line: its capacity, on measurement, was found to be seven pints. There was no stenosis of the pylorus, and the gastric wall was very much thinned at the cardiac extremity. Neither the stomach nor the intestines were over-distended with gas.

The abdomen contained no fluid. The *liver* weighed three pounds thirteen ounces, and was of the nutmeg variety.

The *kidneys* weighed seven ounces each, and were of the large white kind. Their capsules were adherent, and their cortices thickened. The pyramids were red and enlarged. The *spleen* weighed six ounces, and its consistency was firm. No other organs were examined.

The *pericardium* contained four ounces of turbid fluid, in which floated flocculi of lymph.

The *heart* was large, and its left ventricle hypertrophied. Full of blood, it weighed twenty-five ounces; empty, eighteen and a half ounces. By the water-test there was aortic insufficiency. The aortic cusps were contracted and thickened and their free borders fringed with fibrinous vegetations, most of which were attached by pedicles. A patch of atheroma was seen in the aorta. The mitral valve was somewhat thickened. The other valves were normal.

The *left lung* was agglutinated posteriorly and to the diaphragm by old and firm adhesions: between its lobes there were cobweb adhesions: there was no fluid in this pleural cavity; but this lung was the seat of emphysema, hypostatic congestion and œdema. The *right lung* was much more congested than the left; otherwise its condition was the same.

ADHESIVE PERICARDITIS—TUBERCULOSIS.

Dr. W. H. Porter presented the heart and pericardial sac from a patient admitted to the Presbyterian Hospital, January 23d, 1881. The history was furnished by Dr. John A. Wells, house physician. C. B——, aged seventy-two years, German, married, intemperate, denied that he had ever suffered from scarlet fever, rheumatism, or any venereal disease, and referred his first serious ailment to a renal trouble that he experienced several years previous to admission to the hospital. Frequent and painful micturition, partial retention at times, headache, œdema of the eyelids and feet, with a certain amount of cough, were the most prominent symptoms. In December of 1880 he suffered from an attack of pneumonia, from which he never fully recovered. Following that seizure he had constant dyspnœa, pain, occasional rigors, fever and sweating. The cough was accompanied by muco-purulent expectoration. On admission the temperature was normal; pulse, 112; respirations, 40 per minute and labored.

Physical examination showed that the left pleural cavity contained a large quantity of fluid, the height of which in the upright position corresponded with the superior border of the fourth rib. Bronchial breathing was heard above the level of the fluid, with a prolonged expiratory murmur at both apices. A small collection of fluid appeared to be sacculated posteriorly on the right side. The right lung appeared not to be displaced. The apex-beat was to the right of the sternum; but no heart-murmur could be detected, although the sounds were distinct, yet feeble. There was œdema of the feet, and a scanty flow of urine, with traces of albumen; and large hyaline and granular casts.

Treatment.—Diuretics, cathartics, and stimulants.

January 26th.—No improvement. Dry cups were applied to the loins, followed by warm applications, but did not increase the flow of urine, which averaged daily only eighteen ounces. Cupping of the chest was followed by temporary relief from the dyspnœa. Serous fluid containing a small number of pus-corpuscles was drawn from the left pleural cavity with a hypodermic syringe, and also from the right pleural sac posteriorly.

February 1st.—During the last twenty-four hours the patient has been in a stupor, and only passed two ounces of urine. The loins were cupped, hot poultices applied, he was placed in a hot-air bath, and elaterium and pilocarpine were administered, without avail, and he died February 1st, 1881, at 3 o'clock P.M.

Necropsy by Dr. Duffield, assistant physician, fifty hours after death. Body emaciated. *Thoracic cavity.*—The left pleural sac contained one hundred ounces of straw-colored serous fluid, with a slight tendency to turbidity, as if about to become purulent. In the right pleural sac there was a circumscribed collection of fifteen ounces of sero-purulent fluid.

Pleuræ and lungs.—The left lung was compressed by the fluid and slightly adherent at the upper portion; at the apex there was some fibrous thickening; weight of the left lung twelve ounces. The right lung was firmly adherent to the chest-wall and diaphragm, and could only be removed at the expense of the lung-tissue. At its apex there was a calcareous nodule the size of a marble. This lung was indurated and contained a few miliary bodies, identical with those found on the pericardium. Its weight was twenty-four ounces.

Pericardium and heart.—Doubtless there had been an extensive pericarditis at some past date, which had resulted in an almost universal adhesion between the visceral and parietal layers; for the pericardial sac was entirely obliterated, and both layers were covered and thickened by inflammatory products to such an extent that together they were fully one-half inch thick. About the middle of the new material there was an apparent line of separation which could be increased by a little force, and evidently represented what was the original pericardial sac. The valves of the left side of the heart were thickened and atheromatous, especially the bases of the aortic, which were also the seat of large calcareous masses. The weight of the heart, with its attached and thickened pericardium, was twenty-six ounces. The internal surface of the aorta was extensively atheromatous. On the outer surface of the heart sac, covering the base of the right auricle and extending over the large vessels, numerous miliary bodies resembling tubercles were seen, which when flattened out on a slide and examined under the microscope, showed a fine reticulated network and large irregular masses of protoplasm containing large nuclei and nucleoli.

The *spleen* was firm, but not waxy; weight eight ounces.

The *kidneys* weighed six ounces each. Their capsules were thickened and slightly adherent. There was a great number of small cysts on the surface of both kidneys; and on section, they were found abundantly within. Every evidence of a diffuse trouble existed.

The *liver* weighed fifty-nine ounces, was deeply pigmented and fatty (so-called "nutmeg liver").

DR. RIPLEY suggested that some of the fluid could have been removed from the pleural cavities, and thereby great relief afforded to the patient. He also referred to a case of pyo-pneumothorax, in which the patient was as near dead as he could be and live, when he made a free incision, removed sixty ounces of pus, and the man is yet alive. The operation was performed two years ago. Of course it was a rare case.

The PRESIDENT said we should recollect that a number of cases of sudden death were on record, supposed to be due to the rapid removal of a large quantity of fluid from the pleural cavities; therefore, the operation was not entirely unattended by danger.

DR. BRIDDON thought that the operation was ordinarily safe. He had seen patients die suddenly where the fluid was not drawn off, and he had also seen them die while emptying the pleural cavity.

DR. DOUGHERTY referred to a case in which he aspirated the pleural cavity *seven* times, removing from three to five pints of pus at each sitting, and the patient recovered.

CEREBRO-SPINAL MENINGITIS.

DR. G. L. PEABODY presented the brain and part of the spinal cord from a young man who died thirty-six hours previously, of cerebro-spinal meningitis. He was nineteen years of age, and gave a well-marked history of the disease, which had continued for ten days, when he died with a high temperature. The lesions were more marked than usual, consisting of a layer of pus, not only in the meshes of the pia mater, but upon its surface, and in places one-eighth of an inch thick. It began on the base of the brain, extended backward over both lobes of the cerebellum, and then down the cord all the way to the cauda equina. The exudation was more abundant upon the posterior than upon the anterior surface of the cord, but was present in large quantity upon the latter.

NOTE.—The latest suggestion about the nature of cerebro-spinal meningitis, as it is apt to prevail in cold, damp, and over-crowded tenements, prisons, barracks, etc., is that it is a miasmatic rheumatic affection which attacks the cerebral and spinal membranes, as acute rheumatism seizes upon the heart and its membranes.

Dr. Peabody also presented the heart removed from the body of a man fifty-one years of age, which showed

FIBROID DEGENERATION, WITH BEGINNING CARDIAC ANEURISM.

The aneurism was situated at the apex of the left ventricle, and involved chiefly the ventricular septum, but extended somewhat into the anterior wall of the ventricle. It was filled with old laminated fibrin, and continuous with that was a recent clot, which extended into the aortic opening. There was no valvular lesion. The muscular tissue was very fatty, and the left ventricle was very much dilated. The lungs contained numerous hemorrhagic infarctions, some of large size. There were no other hemorrhagic infarctions in any part of the body. The man was a sea-captain. He gave no history of syphilis, though he confessed to having had a sore upon his penis, without secondary symptoms. He had suffered for several months from pain, beginning in the precordial region and extending into both arms, and this, with a gradually increasing weakness and dyspnœa, were the only symptoms of which he complained. Both lower extremities were markedly œdematous, and his urine contained albumen and granular casts. He also had hydrothorax; the fluid was removed from the chest several times, but it returned, and at the autopsy nearly two quarts of fluid were found in the pleural cavities.

The kidneys were intensely congested, and the epithelium of the convoluted tubes was granular in some places, and in others distinctly fatty. A large number of hyaline casts were within the tubules near the apices of the pyramids.

The central vessels of the liver were dilated, and there were hemorrhages in their immediate neighborhood. The man died with all the symptoms of hemorrhagic infarctions of the lungs, viz., pain, dyspnœa, and spitting of blood; he also had an attack of acute pleurisy.

NOTE.—In Vol. I. of the Transactions, pages 83 to 88, nine cases of aneurism of the heart are given, all in the left ventricle.

SPECIMENS PRESERVED IN THE VAPOR OF WICKERSHEIMER'S FLUID.

Dr. Peabody also presented two hearts removed more than two months previously, and placed in Wickersheimer's fluid for two weeks, when the fluid was removed and the specimens left suspended in the vapor of the fluid. The muscular tissue was darker than normal, and the fat had lost its brilliant lustre, but the different colors of the aorta, the valves, the muscular tissue, and the fat, together with the thickened endocardium, had been very well preserved. He had one specimen which had been simply suspended in the vapor of the fluid for three and a half months which still remained in good condition.

CENTRAL MIXED SARCOMA OF THE HEAD OF THE TIBIA—EARLY METASTATIC DEPOSIT IN THE LOWER EPIPHYSIS OF THE FEMUR.

DR. E. C. WENDT presented a specimen which, together with the following history, was obtained through the courtesy of Dr. F. Lange, under whose professional care the patient had been, and who removed the thigh by amputation. Mrs. R——, fifty-four years of age, married, native of Germany. Her father was stated to have died of malignant disease involving the frontal bone when sixty-four years old. The patient herself had enjoyed good health for many years, but about seventeen years ago she began to suffer occasional rheumatoid pains about the right knee-joint. Four years since she noticed a temporary swelling there, and shortly afterward a slight tumefaction became permanently established. She was then placed under treatment for arthritis, the disease being supposed to belong to that variety of joint affection described by the German writers as *arthritis de-*

formans. The patient remembered having had a painful spot at the external aspect of the knee several years back. But the skin was not known to have presented any peculiarity, nor did any formidable swelling make its appearance there at that time.

Last May she fell from a carriage, striking her right knee upon the ground: considerable ecchymosis was soon seen about the joint, and the leg also showed much discoloration, which remained in the vicinity of the painful spot. The patient stated that after a little while a distinct tumor appeared, which within the past few months rapidly increased in bulk, occasioning almost constant gnawing pains and much discomfort. Latterly, even walking became a nearly impossible exertion. Simultaneously with the evolution of the new formation she lost flesh and her general health became impaired.

A surgeon of this city had practised an exploratory puncture, which was followed by the spurting of a stream of blood, and as the swelling also appeared to be pulsating, he concluded that he was dealing with an aneurismal tumor.

When Dr. Wendt saw the woman, with Dr. Lange, immediately before the operation, a blowing murmur was not audible over the tumor. The growth itself was spherical in form and about as large as a good-sized man's fist. Its surface was smooth, excepting a few larger rounded protuberances which bulged forth here and there. The feel of the growth was moderately soft and elastic, but not uniformly so, since in some places it was much more yielding than in others. Stretching of the attenuated skin was visible over the neoplasm, but though the integument had a dull hue, there was now no very marked discoloration. The glands in the popliteal and inguinal regions were not enlarged. Mobility of the knee-joint, though not perfect, and, as regarded spontaneous movements, much impaired, could be made passively with no great difficulty.

Amputation was practised after Esmarch's improved method: the constricting ring remained tightly secured for fully three hours, and about fifty ligatures were applied before it was slowly removed. Manual compression of the flaps was performed for about ten minutes more, the stump being held vertically elevated. A sufficient number of absorbable drainage-tubes were inserted and secured by safety-pins: a permanent antiseptic dressing was applied over the wound ; a rubber bandage rather firmly secured over the whole, and kept in situ two days. When the entire dressing was removed on the twelfth day, in Dr. Wendt's presence, the wound was completely healed by primary intention. Of the drainage-tubes, only the safety-pins remained in the dressing. Some dried blood was found on the gauze, and there had been, apparently, no secretion from the wound. The patient's temperature had been nearly normal throughout.

An examination of the amputated thigh was then made. The knee-joint was first opened, and the cartilages found healthy, excepting a slight yellowish tinge at the surface and a marked thickening over the patella. The cut surface of the tumor, which had evidently grown from the head of the tibia, was nearly smooth, and quite succulent, but no undue vascularity was discernible with the naked eye. The color was a mottled grayish pink, but even this was not uniformly distributed: for paler areas, always of rounded outline, alternated with portions of a darker, duskier hue. Here and there glistening bands traversed the growth, but they did not seem to start from a common centre, but passed irregularly through the substance of the neoplasm. A few yellowish streaks were likewise seen, and an occasional brownish patch indicated points of probable accumulation of blood-pigment. The capsule surrounding the entire new-formation was not very thick, but firm, rather tense, and fibrous. Portions of the tumors were of gelatinous consistence, and had an encephaloid appearance; others were of more solid consistence; but the soft tissue preponderated over the harder variety. The skin over the tumor was variously thinned, and in some places adherent.

The fibula was not invaded by the malignant disease. On sawing through the femur, there was found in the intercondyloid space a circumscribed rounded mass resembling the original neoplasm, with a pretty sharp line of demarcation between the apparently healthy cancellous tissue and this metastatic tumor, for as such it must undoubtedly be regarded. This secondary deposit was quite uniformly soft and gelatinous; it had a mottled appearance, in which a reddish-brown was the prevailing color; and everywhere it was surrounded by bony tissue, which completely shut it off from all direct communication with the primary growth of the tibia.

A *microscopical* examination of the neoplasm elicited the fact that it was a mixed sarcoma, with a preponderance of the small spindle-celled over the small round-celled variety. It was undoubtedly of central origin, having sprung from the tibial epiphysis. Its component elements were short or long oat-shaped corpuscles, most of which had one, or even two nuclei. These were either round, oval, or spindle-shaped. Between these spindle-cells, although they were closely crowded, a fibrillated connective-tissue matrix could be distinctly seen. In some places there were broader or narrower wavy bands of connective tissue, which were variously interwoven, and often inclosed what appeared to be aggregations of round cells, but were in reality only transverse sections of the spindle-shaped corpuscles. Nevertheless, spherical nucleated elements, resembling in their grouping ordinary granulation tissue, were also encountered in variously large areas. These round corpuscles likewise showed a fibrillated matrix tissue, but it was more delicate, and, therefore, less prominent than that found around the spindle-cells.

As regards the blood-vessels of this tumor, although its microscopical appearance might suggest a highly vascular condition, and in its clinical behavior induced one surgeon to pronounce it an aneurism, yet the microscope failed to reveal any inordinate supply of them. There were, indeed, in many places smaller and larger vessels with scarcely any walls save a simple layer of endothelial cells, but these appearances are by no means uncommon in ordinary sarcomatous tumors. It may be that the delicacy of the vascular walls predisposes such tumors to the punctate extravasations of blood above noticed. On the other hand, it must be remembered that such hemorrhages have also been observed where the blood-vessels were of normal thickness.

With reference to the deposit found in the lower epiphysis of the femur, it may be said that this constitutes a rather exceptional occurrence, for ordinarily the osteo-sarcomas of central origin, barring the pure round-celled growths, manifest but little tendency to infect neighboring structures, or form secondary metastic deposits. Finally mention may be made of a cyst without distinct walls, situated superficially in the tumor, and containing what appeared like a recent blood-clot partly softened.

Mixed sarcomas are less frequently seen in connection with bones than with many other structures. As regards their degree of malignancy, it probably exceeds that of the purely round-celled growths: still, reliable data are lacking to establish the truth of this proposition. It is not impossible that the rapidly growing round-celled tissue may replace the more stable spindle-celled structures, and thus a mixed tumor may eventually become a uniformly round-celled neoplasm.

Dr. C. K. Briddon presented a carcinomatous rectum and prostate gland from a patient sixty-nine years of age.

TRICUSPID REGURGITATION.

Dr. Beverley Robinson presented the heart from the body of a man in whom, during life, *only* a tricuspid regurgitant murmur was heard. The left radial artery was weaker than the right. The tricuspid orifice permitted the introduction of *five* fingers. The right ventricle was considerably dilated; the left very slightly. The murmur was heard with its greatest intensity in the epigastric region. The other valves of the heart were apparently normal. The heart weighed twenty-one ounces. The spleen was much enlarged, and contained old yellow infarctions. The kidneys were of the large white variety.

FIBRO-CHONDROMA (?) OVER THE TUBER ISCHII.

Dr. Lewis H. Sayre presented two hard tumors removed from directly over the tuber ischii of a coachman, who gave no history of either syphilis or malignant disease. The patient first noticed their existence four years ago, and they had since increased in size so as to interfere with his occupation. They were not attached to either bone or bursa. One was adherent to the skin, the other was not. They were non-sacculated, and dissection was necessary for their removal. They were referred to the committee on microscopy.

Dr. W. R. Birdsall then presented specimens of the

FILARIA LOA AND PULEX PENETRANS,

received from Dr. H. M. Bachelor, who is stationed at Kangwe

Hill Mission, Ogone River, about two hundred miles from Gaboon, on the West Coast of Africa. The following is an abstract of Dr. Bachelor's letter: "A white lady missionary stationed here with me returned to America some eighteen months ago. While on her journey out I met her at Liverpool, and she remarked that an eye-worm was 'in her head' somewhere, and that it frequently came near to the surface of the skin, so that its contortions could be plainly seen. It caused her great anxiety and at times much pain, possessing an extraordinary capability of crossing from one eye to the other; as it would appear in one situation to-day and another to-morrow, always, however, in some part of the eye or its appendages. She sailed for America, and I for Gaboon. Soon after arriving there I extracted one from the eyeball of a native. Its situation was directly under the sclera and over the iris and pupil, so that vision was obstructed. It was coiled up in many convolutions, and was constantly moving in a peculiar vermicular manner. At that place it is a very common thing, and the natives extract them from each other's eyes by means of a crooked thorn. It was this specimen I described in the *Medical Record*, and which I afterwards sent to my former teacher, Prof. D. B. St. John Roosa, of New York. When I subsequently came to this place, I found the filaria loa as common as at Gaboon, so that it is not considered a rarity or curiosity. One day, while visiting the English trading-house near here, I took one from the eye of one of the natives and threw it away, not knowing that any one would like to see it. Dr. Nassau, my predecessor, was frequently affected with them, and at one time had one in the areolar tissue between the thumb and index finger. The pathological symptoms attending its presence are heat, swelling, and inflammation. Sometimes the swelling is so great that the eye is entirely closed, and there is little rest for the sufferer during the three or four days of inflammation; but without treatment this always subsides, and according to Dr. Nassau's impression, the parasite either dies or migrates, and is never seen again; but I doubt this very much. In the course of time Mrs. —— returned to the mission and came to this station, when she informed me that she was not rid of the worm, and it had been a constant source of annoyance to her while in America. It seems she must have had two or more worms, for a missionary removed one from her eye, and a physician endeavored to extract another, but only succeeded in cutting it in two. I made an effort to capture the worm while it was on the eyeball, but could not do so on account of the involuntary turning of that organ at the instant the knife came in contact with it. Next day it appeared near the surface of the outside of the lid, and from that situation was easily removed. It measured two and one-fourth inches. Fourteen days after, another made its appearance, which I took out of the lid without difficulty.

"I am quite unable to venture an opinion as to the manner in which they are introduced into the system, but I can relate facts which may throw some light on the subject. Dr. Nassau in his boat journeys always drank of the water of the river, just as the natives do. It is by no means clear or desirable for use, as it contains the 'wash' of all the hills and mountains, much decayed animal and vegetable matter common to the tropics, and sand; not infrequently putrid human bodies are seen floating in it. On the contrary, I have never, unless driven by extremity, drunk any water that had not been previously filtered. To be sure, I have been in Africa only fourteen months, and perhaps the water has nothing to do with the matter. But the fact is, the doctor was frequently troubled with the filaria, and I have never had one. The natives also, as I have said, are very frequently infested with it. Mrs. —— states that, up to a certain time of her residence in Africa, she had not experienced any trouble, but on one occasion while at a certain station of the mission, water during the dry season became very scarce, and she was obliged to drink impure and unfiltered water from a swamp. I must be candid, however, and state that many travellers and others have drunk all kinds of water and yet escaped infection.

"I am quite certain the specimen I sent to Prof. Roosa was the second ever sent to America, the first having been sent by Dr. Nassau to a Philadelphia physician. It was not a perfect specimen, as a certain amount of dexterity is required in order to remove them entire."

Dr. Bachelor also sent specimens of the *pulex penetrans*, or *chigoe*, at different stages of development. They are very common there. He gives the following history of the introduction of the parasite into West Africa:

"In 1874 a Brazilian vessel touched at St. Paul de Loanda, in the country of Angola, some three hundred miles south of the equator. The feet of the sailors were infested with these insects, and as they are capable of propagating themselves indefinitely, when they are removed on shore, the land was soon literally sown with them. It was a bad time for the natives. They had never been known before, and were allowed to remain in the feet. I have seen probably a hundred natives who have lost one or more toes on account of them."

GANGRENOUS DYSENTERY—PERFORATION OF THE DESCENDING COLON—PERITONITIS.

The President then presented specimens with the following history:

C. B——, fifty-nine years of age, was admitted into the Presbyterian Hospital, December 15th, 1880, suffering from a broken leg. On January 2d, 1881, while still in the hospital, she was taken with the symptoms of dysentery. On January 16th the number of discharges had lessened, though they still contained blood and mucus: the tenesmus also had moderated, but there was some tympanites. On the 20th the symptoms had still further improved, as the number of passages was reduced to six, and contained no blood or mucus. Further improvement, however, seemed to be arrested here, and there was decided pain in the hypogastric region, and inability to control the sphincters, so that foul fecal matter poured from the rectum. On February 12th a dark-brown spot was noticed on the anterior surface of the left thigh, just below Poupart's ligament, which finally became as large as a man's hand, and sloughy in the centre. The discharges from the bowel were now fluid, fecal, and very numerous. On the 20th collapse set in, and the patient died the next day.

At the *post-mortem* examination it was observed that the heart was hypertrophied and the liver large and fatty, weighing seventy-six ounces. The peritoneal cavity contained a small amount of purulent matter, and there were some flocculi of lymph in

Douglas's sac. The chief seat of the disease, however, was located in the colon: its descending portion was covered with ulcers from the sigmoid flexure upward; many of them gangrenous; and several had opened into the peritoneal cavity. The rectum was but little affected.

DYSENTERY—PERFORATION OF THE COLON—PERITONITIS—BONE ENCYSTED IN THE LUNG.

The President also presented specimens with the following history:

A. M——, aged thirty-seven, domestic, was admitted to the Presbyterian Hospital, August 30th, 1878, in the service of Dr. Hubbard. Her recent illness commenced three weeks before admission, the initial symptoms of which were, a chill, followed by fever, some abdominal pain, and a profuse diarrhœa. The latter continuing, the passages began to show an admixture of blood. When first examined, the pulse was 120; the temperature 102° F. These symptoms were complicated by the signs of advanced phthisis, with cavities in both lungs. Notwithstanding very active treatment her condition did not improve, and she died with symptoms of collapse, September 11th.

At the *post-mortem* examination it was observed that the body was greatly emaciated. On the left side of the chest, over the sixth and seventh ribs, there were four cicatricial depressions in the skin. On attempting to remove the right lung it was found firmly bound down to the chest-walls over nearly all its surface, and contained several small cavities in the upper lobe. In the middle lobe was a long piece of dead bone, which had become completely encysted in the lung, and was located immediately opposite the cicatrices already mentioned; which in turn corresponded to bared portions of the sixth and seventh ribs. The left lung also contained vomicæ. In the peritoneal cavity were flocculi of lymph at various points. Ulcerative lesions in the intestinal tract were also found, especially in the colon: more particularly and in greatest quantity in the caput coli and transverse colon. The descending colon was much thickened, but not ulcerated. Some of the ulcers in the caput coli had perforated the gut, causing peritonitis. The rectum was also similarly involved. The liver was not affected. The other organs were not notably diseased.

OSTEO-CHOLESTEATOMA OF THE SYLVIAN FISSURE—OBSCURE CEREBRAL SYMPTOMS.

The President further presented a specimen with the following history: W. M——, aged fifty-seven, German, was admitted to St. Luke's Hospital March 8th, 1881. His history was unsatisfactory, but briefly as follows :—A year previously the first symptoms set in, and were mainly those of coldness and weakness in the lower extremities, with progressive failure of health and strength. Two weeks before admission he began to have cardiac pain and palpitation, and soon had swollen feet. On examination he was found to be emaciated, and had a marked cachectic appearance. He was listless, could only be induced to speak after long continued questioning, and was very somnolent. Pupils normal; examination of urine negative.

On March 9th, after a long and uninterrupted sleep, he manifested delusions, but required no restraint. In the afternoon, while being raised into the half-sitting position, he vomited about a pint of bile-stained fluid. At 7.30 pulmonary œdema set in, and he died in a few hours.

Autopsy, March 11th, thirty-two hours after death. *Brain.*—The pia mater was thickened, and the brain-substance unusually pale: the vessels at the base were free, and there was no abnormal quantity of fluid in the ventricular cavities. In the right Sylvian fissure, however, there was a small hard tumor, which on section was found to contain cholesterine, inclosed in a rough osseous shell, from which trabeculæ penetrated toward the centre.

This tumor measured 3½ cm. in its greatest length, and 3 cm. in its largest breadth. Its surface was rounded but rough; the base was flat, and pressed about one centimetre into the floor of the Sylvian fissure. It encroached upon both the frontal and parietal lobes, chiefly upon the former, but was not seen until the fissure was exposed by the knife.

The *pericardial sac* contained one ounce of clear serum. The *heart* was small and fatty ; weight, six ounces : valves normal by water-test; but the attached borders of the aortic valve were somewhat stiffened; the free border of the mitral was the seat of cadaveric injection.

The *right lung* was bound down by old pleuritic adhesions, and the seat of emphysema, œdema, and hypostatic congestion: in the apex was a calcareous nodule of the size of a pea. The *left lung* was in a similar condition, except that a larger nodule was found in the apex. The other thoracic organs showed no noticeable indications of disease.

CANCER OF THE DURA MATER AND OF THE LUNGS.

By THOMAS D. SWIFT, M.D., *Candidate.*—Christiana Lohr, ætat. 50, German, single, admitted February 3d, 1881, had been sick about two weeks with a slight cough, and pain in both sides of the chest; but she had had no chills, nor rusty colored expectoration; still there was dulness on percussion and absence of all respiratory sounds over the upper half of the left chest in front; and a few subcrepitant râles, most numerous over the lower part of the thorax behind, on the left side. The urine and temperature were normal. There were four soft fluctuating tumors on the scalp, somewhat larger than a hen's egg, and exploration showed them to contain a gelatinous, transparent, straw-colored fluid. The patient was positive that these tumors had been there no longer than two weeks, and that they had increased rapidly in size. They also enlarged perceptibly during the patient's stay in the hospital (viz., from Feb. 3d to Feb. 9th), but were painless. There was no headache.

Feb. 6th.—Sputum slightly tinged with blood. Patient mildly delirious. Examination revealed no change in the physical signs. The delirium continued until the night of Feb. 8th, when she expired.

	TEMP.	RESP.	PULSE.
Feb. 4th, P.M.	102½		
5th, A.M.	101¾		
P.M.	99	28	90
6th, A.M.	100	30	98
P.M.	103	32	120
7th, A.M.	102¾	34	144
P.M.	103	46	136
8th, A.M.	105	38	144
P.M.	106	36	118

The treatment consisted of:—Whiskey, ℥ viij. daily. Digitalis, gr. viij. and Ammon. carb. gr. lx. also daily; and on Feb. 8th, quin. sulph. gr. xl.

Autopsy, 8 hours after death. *Lungs.*—Cancerous infiltration of the left lung, principally around the bronchi, and occluding the bronchus leading to the upper part of the left lung. Pneumonic consolidation of the lower half of the left lung.

Heart and abdominal organs normal.

Brain.—The tumors on the scalp contained colloid material; and the largest one, at the apex of the skull, was filled with cancerous matter, which was connected, through a perforation in the bone, with the dura mater. The bone was much eroded at this point, as well as at the situation of the occipital protuberance. The microscope showed this matter to contain cancer cells (?).

ARSENICAL POISONING.—DELIRIUM TREMENS.—CEREBRAL MENINGITIS.—SPECIAL IMPLICATION OF THE SPLEEN.

By John A. Wells, M.D., *Candidate.*—P. D., æt. 37, night watchman, was admitted to the Presbyterian Hospital on March 3d, 1881. Two hours previous to admission, while intoxicated, he swallowed about four ounces of "Paris green" with suicidal intent. A physician who had been summoned gave an emetic of mustard water and such free emesis was secured that the greater portion of the poison was rejected from the stomach, and subsequently the hydrated sesquioxide of iron was administered. After admission to the hospital, emetics of sulphate of copper and mustard were thought advisable and were given. The stomach pump was also cautiously employed. Six hours later, he complained for the first time of burning pain in the epigastrium and insupportable thirst: there was also constant vomiting, and micturition was difficult and scanty. For forty-eight hours these symptoms continued with undiminished severity, then delirium tremens set in, followed by collapse in twenty hours, and death.

Post-mortem examination, 23½ hours after death, by Dr. John A. Wells, House Physician.

Rigor mortis well marked. Post-mortem mottling on the inferior surface of the body, and on making the usual longitudinal incision from the episternal notch to the pubis, an extravasation of blood was found in the substance of the rectus abdominis muscle, in the hypogastric region.

Thoracic Cavity.—The pericardium was normal, containing the usual amount, ℥ i. of clear serum. The heart-ostia were free and almost normal, the mitral only being slightly insufficient, while one segment of the aortic valve exhibited two small holes near the free border. The surface of the heart showed some "milk patches," several of which could be torn off. The cardiac substance was normal and contained dark fluid blood, but no clots. *The lungs* were œdematous throughout, and were not bound down by adhesions of any kind. The most notable changes were in the lower lobes of both sides, which showed, in addition to well-marked hypostatic congestion, distinct foci of a deep-red color which appeared like extravasations or infarctions. Weight of right lung, ℥ xxv., left, ℥ xxii.

Abdominal Cavity.—The *spleen* was deep-red and soft; weight 5½ oz. The *liver* was markedly fatty; its right lobe especially: weight 4½ lbs. *The right kidney* appeared small, considering the size of the individual; its capsule was not adherent, but the cortical substance seemed to contain an unusual amount of fat; still the markings were normal. Fat tissue was unusually abundant in the renal pelvis. *The left kidney* weighed 6½ ounces, and its general condition was similar to that of the right.

The pyloric extremity of the *stomach* was of an intensely red color; its œsophageal end had a light pinkish tint and exhibited the ordinary coating seen in chronic gastritis. The duodenum and upper portion of the jejunum were also congested, but in a much less degree than the stomach.

Brain.—The vessels of the membranes were distended with blood, and there was a considerable amount of sero-sanguineous fluid in the lateral ventricles. Otherwise nothing abnormal was noticed.

As some interest was felt in testing the different organs, to find which contained the greatest amount of the poison, most of them were subjected to Marsh's test. Each viscus accordingly was divided into small fragments and crushed in a mortar. After the apparatus had been perfectly tested, to prove the presence or absence of arsenic in the reagents used, a small quantity of Fowler's solution was poured in a hydrogen generator and the characteristic crust of metallic arsenic appeared upon a porcelain plate. The stomach had been already placed in Wickersheimer's fluid to preserve the color, and the examination of it was omitted for obvious reasons.

The following solids and liquids, however, were tested. The brain, serous fluids of the ventricles, cerebral meninges, lungs, heart, liver, large and small intestines, spleen, kidneys, bladder, and urine. No traces of arsenic were found in any of the above, excepting only the spleen. Repeated examinations of the latter secured in each instance a bluish tint to the flame and the metallic "tache" was invariably caught upon the porcelain.

A FOUR-MONTH FŒTUS, BEARING THE IMPRINT OF THE MECHANICAL MEANS USED TO CAUSE ABORTION.

By T. R. CHAMBERS, M.D., *Candidate.*—Mrs. S——, U. S., æt. 35, the mother of two healthy children, eight and ten years of age respectively, becoming alarmed at the severity and persistence of some uterine symptoms, sent for the doctor and confessed that thirty hours previously she had passed a rather stiff, but flexible catheter through the vagina into the uterine cavity; the bag of waters had been emptied, but nothing more than oozing blood had since been seen, while the pelvic pain was agonizing. The fœtus, together with the rest of the contents of the uterus, came away thirty-six hours after the discharge of the waters. She was four months advanced, and medicines per os failing, recourse was had to these mechanical means. On former occasions when *enceinte,* she said she had employed the tip of a pair of scissors once, and often a catheter similar to that used this time.

Examination revealed a frightfully lacerated os, soft and pulpy.

The child had imprints upon the crown of its head of the harsh method employed. It was decided to be a four-month fœtus, because the genital furrow was closed, and the scrotum and penis were formed. The vertebral muscles had met in the middle line. The nails were fully shaped on the fingers and beginning on the toes. The eyelids, which are formed at the end of the third month, were quite developed.

Worthy of notice were: The caudal extremity and injected coccygeal eminence. The small intestines which should have entered the abdomen at the end of the third month were still external, and the cord entered just above the pelvis. The large size of the liver? The absence of the (lanugo) fœtal hairs which are said to appear at the fifth month; nor were the sudoriferous or sebaceous glands present. The nostrils were still covered with the epithelium which remains until the fifth month. The umbilical vessels consisted of two veins and one artery; at five months two arteries and one vein form the cord.

MULTIPLE FRACTURE OF THE UPPER AND LOWER EXTREMITIES; EXCISION OF THE ANKLE JOINT AND AMPUTATION OF THE LEG.

By Richard W. Mueller, M.D., *Candidate.*—Christian Loechner, aged forty years, unmarried, a native of Germany, and by occupation a butcher, was perfectly healthy up to the year 1873, when he contracted syphilis for which he was treated in a hospital for thirteen weeks, and was then discharged cured.

In 1874 he had acute articular rheumatism in all the joints, especially troublesome in the left ankle; and after the other joints were quite well, this one remained sore and swollen. In August, 1875, this swelling extended over the dorsum of the joint, and an abscess opened which communicated with dead bone. Dr. Ripley, who had charge at that time, removed necrosed bone without interfering with the cavity of the joint. On January 29th of the same year, the necrosis had extended to the joint and articular surfaces, in consequence of which all the diseased bones of the tarsus were removed at one operation by Dr. Ripley.

Soon after this the patient left the hospital comparatively well, but returned again during the summer of 1876 with much more extensive disease of the foot and leg than he previously had had. In October of the same year, I amputated the leg at the upper part of the middle third, and he was discharged cured on the 12th of January, 1877. But he returned in three months with a fracture of the opposite leg, which had not been properly treated and had united with much curvature. Dr. Ripley then refractured the limb and put it up in plaster and once again the patient was discharged cured. However, the following year he was again admitted to the hospital with a fracture of the humerus through the surgical neck; he also suffered from bleeding piles and prolapse of the rectum. His fracture united and the hemorrhoids were removed, but a few weeks subsequently he complained of deep-seated pain in the pelvis and small of the back, accompanied by high fever, which seemed to be controlled by quinine. Two weeks from the commencement of the fever peritonitis set in, to which the patient succumbed February 28th.

An autopsy revealed extensive peritonitis caused by the rupture of a pelvic abscess, which had not been diagnosed until the peritonitis showed itself.

Report of the Microscopical Committee.

CYSTIC CHONDRO-SARCOMA OF THE EPIDIDYMIS.

The tumor of the scrotum presented by Dr. F. D. Lente, October 22d, 1879, was examined microscopically by Dr. A. M. Jacobus.

The growth was found not to involve the testicle which was at the posterior portion of the mass. On section it was seen to contain numerous small cysts, filled with a thick yellow grumous matter or pus. About one-half of the tumor consisted of curious clusters of a pearly color, having the hardness and consistency of cartilage. No ossific deposits were seen. Round about the cysts and nodules was a soft semi-solid material.

The pearly clusters were made up of hyaline cartilage; the cysts were lined with tesselated epithelium; the semi-solid matter was composed of medium-sized rounded corpuscles imbedded in a homogeneous matrix. The testicle was of normal size, but its epithelial elements had degenerated. The epididymis seemed to have been destroyed or replaced by the new growth.

The committee having examined the tumor and microscopical specimens concur in the above report. W. M. CARPENTER.
T. E. SATTERTHWAITE.

OSTEOID SARCOMA OF THE LUNGS, LIVER, ETC.

Report on the growths involving the lungs, pericardium, mediastinum, pleuræ and liver, presented to the Pathological Society by Dr. Van Giesen, October 15th, 1879. The new growth found in the chest was made up of small round connective tissue corpuscles imbedded in a homogeneous matrix : it also contained small spicula of bone, which exhibited the characteristic bone lacunæ with their canaliculi. The nodules in the liver were composed of the same kind of corpuscular elements, but were included in a tolerably well-defined reticulum, and contained no osseous deposits. This is the variety of growth often called reticulated or alveolar sarcoma. The examination was made by Dr. W. H. Porter. The committee having examined the growths and microscopic sections concur in the above description.

W. M. Carpenter.
T. E. Satterthwaite.

The Society then went into executive session.

STATED MEETING, APRIL 13th, 1881.

Dr. T. E. Satterthwaite, *President, in the Chair.*
Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Fœtal abnormality........By Dr. George L. Peabody.
2. Cancer of the stomach, with secondary deposits in the liver. By Dr. John H. Ripley.
3. Composite ovarian tumor....By Dr. Richard T. Bangs.
4. Trichinosis................By Dr. Edmund C. Wendt.
5. Mixed sarcoma of the humerus. By Dr. William H. Porter.
6. Intraocular and orbital sarcoma. By Dr. Charles S. Bull.
7. Acute pericarditis..........By Dr. George L. Peabody.
8. Congenital absence of one kidney, with notes. By Dr. George L. Peabody.

9. Supposed absence of the left kidney.
By Dr. Walter De F. Day, *Candidate.*
10. Sarcoma of the upper jaw. By Dr. Charles K. Briddon.
11. Septic pleurisy in an infant only four days old.
By Dr. J. Lewis Smith.

Dr. Geo. L. Peabody presented, in behalf a candidate, a specimen of fetal abnormality.

CANCER OF THE STOMACH—SECONDARY DEPOSITS IN THE LIVER.

Dr. John H. Ripley presented a specimen with the following history:

Steudel, aged fifty-seven, German, was admitted into St. Francis Hospital, January 31st, 1881. No known hereditary disease in the family, and with the exception of a prolonged attack of inflammatory rheumatism, which he had fifteen years ago, he had been a healthy man, until the beginning of his present illness. He had been a moderate drinker, and never had had venereal disease.

Six weeks ago he began to suffer from a burning pain in the epigastrium while swallowing food, more particularly solids and cold liquids. A few days later, the pain became more or less constant, was often lancinating, worse after eating, and sometimes felt in the dorsal and umbilical regions. It was also increased by deep inspiration, and by assuming the erect position ; hence, while sitting or walking, the patient was accustomed to lean forward. During the last four weeks he had had frequent attacks of vomiting, but the rejected matters had never contained blood. He had lost both flesh and strength.

On admission, it was observed that he was greatly emaciated and had an anxious expression of countenance, but no special cachexy. The abdominal walls were retracted and rigid, producing a broad, deep sulcus in the epigastric region, which was more marked on account of a rachitic deformity of the chest. The tongue was moist and coated with a thick fur. The pulse was rapid and feeble ; the right radial pulse being weaker than the left. The heart-sounds were feeble, and a slight diastolic murmur was heard just above the xiphoid appendix, a little to the left of the median line. A physical examination of the lungs showed chronic emphysema. Pressure on the epigastrium produced pain, but no evidence of the presence of a tumor was found. The outline of the liver appeared to be about normal. His urine was examined with negative results. As the symptoms thus far pointed, for the most part, to simple ulcer at the cardiac orifice of the stomach, that diagnosis was temporarily made. There was no marked change in the symptoms, until about the middle of March, when slight jaundice supervened. A few days later, the patient was chloroformed, so as to relax the abdominal muscles and permit a more thorough examination of the organs within: the liver was then found to extend about one and a half inches below the free border of the ribs; its edge was irregular and hard, and its dorsal surface slightly nodular. No tumor of the stomach could be felt, but the diagnosis was changed from simple ulcer to malignant disease of the stomach, with secondary invasion of the liver.

From this time he continued slowly to fail; the jaundice deepened and the liver rapidly enlarged; pain became more constant and severe, and the stomach rejected almost everything taken. April 6th he became delirious, passed his urine and fæces involuntarily, and died on the following day.

Autopsy by E. C. WENDT, M.D.—Body jaundiced. Abdominal cavity contains a small amount of clear, brownish fluid. The liver protrudes about five inches beneath ribs; its left lobe was prominently enlarged and the whole organ considerably increased in size. The pleural cavities contain no fluid; a few old pleuritic adhesions are found. The lungs on both sides, in all lobes, show a few small, hard, rounded patches of yellowish tint, and subpleural nodules of this kind were especially numerous. There is a slight diffuse pulmonary hyperæmia. The heart is small, flabby, and its muscular substance is tinged brown. The papillary muscles of the left ventricle are hypertrophied. All the valves, with the exception of the semilunar pulmonary valves, contain a few sclerotic, yellowish plates. Spleen large and firm in consistency, and very rich in blood. Kidneys lobulated, but otherwise normal. The œsophagus, stomach, liver and pancreas were removed *en masse*. The mucous membrane of the stomach is moderately thickened, thrown into conspicuous folds, and has a diffuse, reddish color. There is a very hard, yellowish-white thickened ring at the cardiac orifice, and a second circular new-growth at the pylorus. In the apparently cancerous ring, a small, diamond-shaped ulcerated surface appears, and a few hard, rounded masses are found near both rings. One larger nodule, seemingly an infiltrated lymph-gland, is discovered at the common bile-duct, near its duodenal termination.

The bulky liver presents a mottled appearance: superficially, numerous white and yellowish areas alternate with reddish and brownish portions, and the consistency of the organ varies at different places. On section, the mottled appearance is still more marked; the yellowish districts are much harder than the more succulent red and brown portions. Extravasation has apparently taken place around or in some hepatic lobules. In addition to variously sized hard masses of new-formation, the entire liver appeared to be the seat of an irregularly disposed infiltration. With the microscope the nature of these new-formations was seen to be cancerous. Perfectly healthy hepatic lobules were not discovered; but while some acini were entirely replaced by islands of carcinomatous tissue, other lobules showed only a peripheral cancerous deposit. In many places the branches of the portal vein were apparently filled with epithelial corpuscles, and some of these cells were more or less stained with a brownish pigment. Throughout the entire organ rounded heaps of epithelial elements filled with fat droplets were found: such heaps were irregularly scattered in the liver, but were most abundant in those portions corresponding to the greatest malignant change. In the hepatic arteries, and in the central veins, epithelial corpuscles could not be detected.

In some portions of the liver, polyhedral yellowish-white nodules were visible to the naked eye; they had various sizes, and were separated from the surrounding tissue by a rather sharp line of demarcation. All these nodules represented cancerous deposits; but in many there was a decided preponderance of connective tissue over the epithelial bodies; while the softer ones were largely composed of cells, conforming to the epithelial type. The perilobular vessels were lodged in thickened connective tissue, which was the seat of an abundant small-celled infiltration. Red blood-globules were present in the latter, and also occurred in little aggregations or sinuous streaks throughout the liver; larger collections of blood, or distinct clots, were not seen. The epithelial elements composing the neoplasm were smaller than the hepatic corpuscles; nor did they resemble them very nearly in shape; besides their nuclei—though as a rule plainly visible—were proportionately smaller: in addition, their protoplasm was less granular.

Concerning the condition of the lymphatics and biliary channels, minute examination failed to elicit satisfactory evidence. The cancerous invasion must have travelled along the portal system of vascular channels; for in many lobules their central veins, with their immediately adjoining capillaries, appeared to be normal. A perhaps noteworthy feature of this particular hepatic cancer was, that the pigment granules, already alluded to, were found both in the remnants of original hepatic cells and in the epithelia of new-formations; they were, however, more abundant in the former elements.

Finally, as regards those portions of the liver where the disease was least advanced, miliary, or even small nodules of cancer, were the exception rather than the rule. Instead of those rounded collections which are so generally found, there was a peripheral zone of cancerous elements; so that almost normal central portions of certain lobules seemed to be surrounded by a band or ring of carcinomatous corpuscles.

Dr. Ripley regarded the case as interesting in its early symptomatology, because then there was nothing which pointed to other than a simple gastric ulcer. The specimen was also peculiar because the cancer involved both ends of the stomach: the most frequent seat of cancer of this organ being the pylorus: and only that extremity of the stomach in a large majority of cases.

It was also striking with reference to the secondary invasion of the liver: up to the 25th of March, that organ could not have been much enlarged, but from that date it increased in size rapidly. This fact corresponded with the statement made by Von Schüppelt, that secondary cancer involving the liver developed much more rapidly than the original disease: he also says that primary cancer is frequently overlooked, because it is often so small, and also, perhaps, has undergone retrograde regeneration.

The specimen was also interesting as illustrating an extension of the disease into the œsophagus.

Dr. Shrady asked if the diagnosis of carcinoma of the cardiac extremity of the stomach was based on the fact that the patient experienced a smarting sensation with vomiting immediately after taking food.

Dr. Ripley replied that it did, and Dr. Shrady further said that he had had a similar case.

The President remarked that the point of origin of many cancers might be so small as to be readily overlooked; as, for example, when cancer of a bronchus is followed by secondary deposits in the lungs, etc. He also thought it not very rare for cancer to undergo retrogressive change and actually diminish in size: it may throw off its epithelial elements, and perhaps cicatrize in places; while in other parts the disease often progresses rapidly.

Dr. Ripley said, it seemed, from the autopsy, as if the liver had been involved prior to the lungs; a fact which made the case accord with the statement made by Walshe, that the lungs never become involved except secondarily to an invasion of the liver.

The President added that, usually, the secondary involvement of the lungs was by direct extension of the disease from the liver; but in Dr. Ripley's case such seemed not to be the mode of invasion; because the nodules were scattered through the lungs.

Note.—In vol. I. of the Transactions, pages 254 to 264, cancer of the stomach is fully treated of; and a tabular statement of 58 cases presented before the Society is given. The first case was exhibited by Dr. John C. Peters, Dec. 24th, 1845.

Dr. R. T. Bang presented a

COMPOUND MULTILOCULAR, COLLOID AND PAPILLARY OVARIAN TUMOR,

with the following history:

Anne O——, aged thirty-four, New York; widow; a laundress, was admitted to St. Luke's Hospital, June 9th, 1880. Her family history was good; but five years ago she had had rheumatism, which troubled her for six months. Otherwise the patient had always been well up to two years ago, when she began to complain of general malaise, cramps in the stomach, vomiting, and severe vertex-headaches. After a short time these symptoms disappeared, and she continued well all the following winter. Last summer, however, she again fell sick, complaining of exactly the same symptoms; and toward the end of the season had several severe chills, which were followed by fever, intense headache, pains in the back and limbs, anorexia, and a constant, profuse diarrhœa. Still she gradually regained comparative health, and passed the fall and winter in tolerable comfort. In April her old troubles again returned: vomiting, headache and rigors, followed by fever, being the most marked symptoms. The chills occurred at irregular intervals, sometimes twice or thrice daily, and at other times, once every week or ten days: and for the last six months she has had a slight, dry, hacking cough, without night-sweats or hæmoptysis; but has lost considerable flesh and strength. Fourteen years ago she gave birth to a child, the labor being a perfectly normal one; but has borne no children since, and had no miscarriages. When she was ill, last summer, her abdomen enlarged, but rapidly diminished in size as she regained health: this spring the abdominal distention returned, and has been steadily increasing since. Her abdomen was punctured by a physician last April; but as he obtained no fluid, he did not repeat the experiment. Since her abdomen has begun to enlarge, she has urinated more frequently, passing, however, but little water at a time. Of late her bowels have been perfectly regular. Her menses have always been regular, but each molimen has been attended with considerable pain and discomfort. For the past month her feet have been slightly œdematous.

On admission, the patient was very much emaciated. The abdomen is markedly distended with fluid, and both feet and legs somewhat swollen. The superficial veins of the abdomen are greatly increased in size. Phthisis, in the second stage, exists in the apex of the left lung. The cardiac sounds are perfectly normal, but the apex-beat is felt in the fourth intercostal space. The intestines are pushed upward, so that the boundaries of the liver and spleen cannot be clearly defined. The abdomen is fuller on the right side than on the left; and there is also a marked rotundity noticeable, the flanks being but slightly bulged out. On palpation, fluctuation is easily made out; and percussion elicits dulness all over the abdominal surface, except at the sides and in the upper portions of the epigastric and hypochondriac regions. A digital examination of the vagina discloses the presence of an elongated cervix. Examination of the urine gives negative results.

July 13th.—Since admission the patient has remained in about the same condition. She micturates twelve or fifteen times daily and passes from eight to twenty-four ounces of urine in the twenty-four hours. Repeated examination of the water shows *nil*, its specific gravity varying from 1024 to 1030. The distention of the abdomen has diminished somewhat, and the œdema of the lower extremities has entirely disappeared, but the rational symptoms of phthisis have become more pronounced. Her temperature has varied between the normal and 103°: the latter elevation being reached on three consecutive evenings a week ago. She has been taking iron, digitalis, and small doses of fluid extract of jaborandi. Dr. Wheelock, in making a vaginal examination today, discovered a hard mass in the right iliac region; and by conjoined manipulation, the roof of the vagina was felt hard and rough. The uterus did not seem to be increased in size, but was not freely movable.

August 12th.—No change of any importance since last note. She is menstruating now for the first time since her admission to the hospital, and is suffering from severe uterine colic, with pain in the back, nausea, and vomiting.

August 25th.—The tumor was explored with an aspirator-needle, attached to a hypodermic syringe: the puncture being made in the linea alba, midway between the symphysis pubis and the umbilicus, and fluid, of a dirty milk-white hue, was obtained which, when expelled from the syringe, coagulated spontaneously. Microscopical examination of this liquid showed the presence of granular cells, resembling leucocytes, small spindle-shaped cells, blood-corpuscles, and free granular matter.

September 25th.—The patient is menstruating again; the tumor is increasing in size, and the distention is causing her much pain.

September 28th.—The house physician to-day removed ten quarts of a clear, transparent, syrupy liquid from the tumor by aspiration, much to the patient's relief. A well-defined cystic tumor of the right ovary can still be felt; and, in the right iliac fossa, a hard mass is made out on palpation. The liver is small and the spleen of normal size. An abdominal bandage was adjusted. No albumen was found in the fluid removed.

October 7th.—For the week previous to the tapping the patient passed only from eight to twelve ounces of urine daily: during the week following she passed from fourteen to eighteen ounces. The tumor is rapidly refilling, and the severe abdominal pain is returning. She also complains of intense sciatica on the right side. Fifty minims of liquor Magendie, given hypodermically and orally, had to be administered in the past twenty-four hours, in order to keep her free from severe suffering.

October 11th.—The patient is very much more emaciated than when admitted: the "facies ovariana" is now quite well marked. The tumor is again so large as to cause dyspnœa. On auscultation of the chest to-day a cavity was detected anteriorly in the left apex. She has passed only eight ounces of urine in the last twenty-four hours.

October 12th.—The house physician drew off eight and a half quarts of a thick, grayish fluid from the cyst: Codman's aspirator and injector was employed in performing the operation. After the tumor had been well emptied of its contents, a solution of half an ounce of compound tincture of iodine in four ounces of water was injected without withdrawing the needle, which was allowed to stay in for three minutes; at the end of that time it was withdrawn, and a firm abdominal binder applied. The patient was immediately relieved of all pain, and passed the rest of the day in great comfort. On microscopical examination of the fluid, the same elements were found as on a previous occasion: chemical examination showed the presence of thirty per cent of albumen, by bulk; specific gravity, 1018; reaction neutral.

October 16th.—Since the aspiration the patient has passed twenty, twenty-four, and twenty ounces of urine daily.

October 29th.—The pains in the back, thigh, and abdomen have returned. The tumor is again fully distended, and the patient wishes to have it tapped once more. During the past week she has voided only eight ounces of urine daily.

October 30th.—Aspiration was performed as before, and three and a half quarts of a dark and very thick fluid were removed. A solution of compound tincture of iodine of the same strength as that previously used was again injected into the sac, and withdrawn after five minutes. A binder was applied as before. The specific gravity of the fluid evacuated was 1022. Otherwise its examination proved negative.

November 3d.—She has passed sixteen, fourteen, fourteen, and sixteen ounces of urine respectively on each of the last four days.

November 12th.—The pain in the back is returning: the patient is slowly sinking and requires considerable morphia to keep her comfortable.

November 14th.—She died at 11.40 A.M. of pulmonary œdema.

November 15th.—*Autopsy,* twenty-two hours after death. Cadaver extremely emaciated. Post-mortem rigidity tolerably well-marked. Abdomen greatly distended, and pendulous toward the right side. The heart was found in systole, and weighed six ounces: the valves were normal. The pericardium contained a normal amount of fluid.

There were fresh pleuritic adhesions on the left side. The top of the left lung contained a cavity as large as a horse-chestnut: the rest of the apex was filled with a cheesy mass, around which there was a proliferation of fibrous tissue. In the lower lobe of this lung, phthisical foci were found surrounded by localized pneumonia. Old cicatrices and calcareous deposits existed here and there, and there was marked œdema. On the right side there were no adhesions, although the lung was œdematous, but otherwise healthy.

The liver was small, weighing only two and a half pounds. The spleen weighed twelve ounces.

The abdomen was filled with a cyst, which was adherent all around by soft and easily broken-down adhesions. Eight quarts of thick, viscid, dark-gray fluid, with pus sediment, were removed from its cavity; and it was found to be attached to the right ovary by a pedicle half an inch in diameter. It was multilocular, being made up of one large cyst and several smaller ones. Near the pedicle was a colloid mass of the size of a child's head at term, which was at first thought to be a medullary cancer; but, on microscopical examination by Dr. Satterthwaite, proved to be a simple papillary growth.

The cyst lay upon the spinal column, displacing the intestines toward the sides and upward. The bowels were pigmented and adherent, in places, to the tumor. The colon was normal in size, and in position; but the small intestines were contracted to the size of a little finger. The ileo-cæcal valve was situated under the free border of the ribs, on the right side. The right kidney was three-quarters of an inch higher than the left; but both kidneys were normal, except their pelves, which were largely dilated. The ureters were of the usual size. The uterus and left ovary were healthy. The retroperitoneal glands were enlarged. The bladder was small and empty.

DR. E. C. WENDT presented specimens illustrating

TRICHINOSIS.

The slides under the microscope showed muscle-trichinæ in a free state; and different degrees of parasitic development, although they were all taken from the same woman. The infested muscles were obtained from a recent fatal case of the disease, which had occurred in Hoboken, and for the history of the case he was indebted to Dr. W. T. Kudlich, of that city. The whole course of the malady, from the initial enteric symptoms through a typhoid stage with intense muscular pains, to the lethal termination, was so typical that a detailed clinical account of the case can be omitted. It should be stated, however, that shortly after the young robust wife fell ill, the husband also took to his bed with well-marked symptoms of trichinosis. In view of the present agitation of the public mind over the wholesale prohibition of American pork by the Continental powers, it will be of interest to be assured that in the present instance the disease was unmistakably traced to a home product.

The living parasites were used for purposes of experimentation; and, while entirely new facts were not elicited, a few words may be said as to the results of various trials.

Encapsulated trichinæ are notoriously tenacious of life; but here immature, only recently emigrated parasites, were found wandering about in the muscles. A few of the animals had indeed already assumed the spiral coil position which is the preparatory stage of encapsulation; but the majority were either stretched out, or twisted at either extremity. Little pieces of the woman's muscles were exposed to the action of cold, being frozen several times: and examination, four days afterward, showed the animalcules apparently quiescent; but a gradual elevation of temperature up to about 100° soon proved that life was not extinct, in so far, at least, as active motions can be interpreted as an indication of vitality: and ten days later the parasites were still alive. Some of the flesh was then allowed to undergo partial putrefaction; but even then the animals were found living, thirteen days after the death of the woman.

On the day following the autopsy, some fresh muscle was teased, and, there being an abundance of living trichinæ, many were thus isolated. The animalcules were never seen to actually creep along in a definite direction; but their movements resembled the unfurling and recoiling of a pennon: nevertheless, a change of place was now and then fortuitously effected. Next, the parasites were subjected to the action of different reagents: saliva produced no visible effect upon them: dilute acids caused increased activity of motion : alkalies made them sluggish : concentrated solutions of either killed them rapidly: in carbolic acid they squirmed and writhed before dying. Glycerine, contrary to what is supposed, did not immediately destroy them, for some lived ten minutes after its addition : finally, however, the worms became shrivelled up into almost shapeless filaments. If previously heated, however, they retained their form to a great extent.

Some of the fresh muscle was submitted to artificial digestion by being placed in a suitable fluid and exposed for twelve hours to about body heat. The fibre was in great part dissolved at the end of this time, and many free parasites were found in the liquid; but they were, if anything, less active than they had been, and, as soon as the liquid was allowed to cool, their movements ceased, to be renewed, however, on reheating the slide. A noteworthy fact, and one of great interest, was that the trichinæ had unquestionably grown! Still, though their size was increased, and although indications of sex could be barely perceived, a distinct evolution into mature males and females was not obtained: it must be admitted, however, that future experiments in artificial breeding may be more successful. Through an inadvertence the continuation of the artificial digestion was interfered with, and the animals were killed by overheating.

Portions of partially putrefied meat were placed in vials containing water, with the addition of a small proportion of glycerine, carbolic acid, and alcohol; and in this liquid the parasites were maintained in a comparatively good state of preservation, showing the details of their interesting organization with satisfactory clearness. Permanent specimens, no matter what technique of preparation was employed, were never found as perfect as recent ones made from bits of muscle thus kept. Of course, fresh meat will answer still better than partially decayed flesh.

Concerning the pathological state of the infested muscles, the changes found were the frequently described conditions of acute myositis accompanied by vitreous metamorphosis, cloudy swelling, and fatty degeneration. In some places the inter-fascicular hyperæmia and small-celled infiltration were beautifully seen.

The subject of trichinosis had occupied Dr. Wendt's attention for a number of years; but this was not the place to discuss the many questions which presented themselves. He would add one further remark as to the diagnostic value of examining small bits of muscle removed from accessible regions in patients suspected of trichinosis: if the animalcules were found, of course the evidence was incontrovertible; but, *vice versa*, a conclusion could not always be arrived at. This he wished to emphasize, because a contrary opinion was very prevalent in some quarters. In the present fatal case of trichinosis, small bits of the deceased woman's muscles were torn from the gastrocnemius and deltoid muscles; and while some specimens contained numerous parasites, others had been found without them. In the diaphragm, intercostal muscles, and other well-known places of predilection, every examined specimen showed abundant parasites.

DR. CARPENTER's observation at the dead-house of Bellevue Hospital had been that encysted trichinæ were found more frequently in the pectoral muscles and the diaphragm, than in the deltoids or the gastrocnemii.

THE PRESIDENT remarked that the subject of trichinosis was now of very great interest to the country at large, and we should be anxious to get all the light possible upon it. Though a vast amount of labor had been expended on the origin, clinical history, and treatment of trichinosis, we have good reason to suppose it was seldom recognized during life, and even after death would often escape notice; unless the examiner had his attention specially directed toward the possibility of its occurrence. Consesequently our present statistics cannot be relied upon in forming an opinion as to its prevalence.

One of the points on which we needed more information was the period of incubation: this was variously placed between ten and forty-two days; or, rather, according to our present ideas, it would take ten, but might require forty-two days, for the young trichinæ to appear in the muscles after the infected pork had been eaten. Now, it was just upon this variable period that the dealers relied chiefly when they were prosecuted for selling trichinous meat. As most infected persons are Germans, who are in the habit of eating uncooked meat, more or less frequently, it is generally easy for the accused to show that other hams or sausages had been consumed during this period of forty-two days; and as statements are to be found that a limited number of living trichinæ can be ingested without harm, it is almost impossible to secure conviction. Dealers therefore do not ask for an examination of hogs or their products; nor are they afraid of being convicted, even should they sell trichinous meat; hence it is particularly important to determine whether or not there is this variable time between the ingestions of the animal and the subsequent migration of the larval form; and more experiments should be made on animals to determine it.

Then another point for consideration is: How frequently is trichinosis met with ? In Europe it is said to occur in from one to two per cent of all cadavers. In this country we have as yet no trustworthy data: at least this conclusion may be drawn from the recent report of Assistant-Surgeon Glazier, of the United States Marine Hospital Service. Still we know that eight hogs out of a hundred were once found trichinous in Chicago, and although this percentage has been once exceeded in Germany, it is a large one for us, and invites consideration.

Especially important was, he thought, the determination whether living trichinæ can really be swallowed with impunity, in small numbers; and, if so, what larger quantity is necessary for infection; whether such trichinæ must be the larval or fecundated forms, or both; and whether, if emetics or purgatives are afterward employed to expel them, as in Dr. Wendt's case, it may not be reasonable to suppose they might have been removed without harm to the individual.

The President further remarked that there were now no specially appointed officials in this city who made it their duty to inspect meat, as was formerly done. A diminished appropriation led to the suspension of this work.

MIXED SARCOMA OF THE HUMERUS IN A DOG.

DR. W. H. PORTER then presented a specimen from a large female mastiff. Some six or eight months prior to death the dog was chasing a cat, and ran with considerable force against a stone wall: when the owner of the animal reached the spot, the dog was lying near the wall, howling pitifully, and could not be induced to move; it was accordingly wheeled home in a barrow. The injury at that time was located at the left shoulder; but though very lame, she commenced using the left foreleg after a day or two, and at the end of a week or ten days had apparently recovered entirely. A week or two later, however, she again became lame, and a small tumor was noticed at the point of the left shoulder, which steadily increased in size; and the disability became more and more marked, until finally the limb was useless as a means of support, and she steadily lost flesh and strength.

When first seen by Dr. Frank Walton, veterinary surgeon, the animal was walking on three legs and drawing the toe of the left foreleg on the ground. There was also a large solid mass covering in the shoulder joint and extending backward, so that the outlines of the scapula and humerus cloud not be defined. This growth was surrounded by considerable œdematous swelling with œdema of the left leg; and a diagnosis of traumatic aneurism was at first entertained, but later it was thought to be a sarcoma of some kind or other. The animal continued to lose flesh and strength, although her appetite remained good.

On April 9th, 1881, an attempt was made, under ether, to excise the tumor, but the animal died under the operation. The limb was then removed entire, when it was found that the growth seemed to spring from the humerus near the junction of the upper and middle thirds, at which point the bone was broken. From this central point the neoplasm radiated out in a centripetal manner, as is common in periosteal sarcomata, and was surrounded by a thin, fibrous capsule, extending above the superior end of the humerus, and reaching into the infraspinous fossa.

The growth was about nine inches long and five in diameter; and at its superior extremity there were two large cysts containing bloody fluid. These cysts had smooth walls like the inside of a blood-vessel; but careful examination failed to detect any communication with the blood-vessels. There were also small spiculæ of bone in the neoplasm.

The humerus, both above and below the fracture, was condensed, and the medullary cavity was completely obliterated. That portion of the infraspinous fossa against which the tumor rested was thickened, roughened, and covered by numerous small bony projections.

Examination of the internal organs revealed secondary superficial deposits in the lungs, kidneys, and spleen; while the liver was free from them.

Microscopic examination.—The tumor was found to be made up principally of various elements conforming to the connective-tissue type: oval and round corpuscles being the predominating variety, though a few spindle and myeloid bodies were also noticed. The secondary deposits were entirely of the round-celled variety.

The case was interesting, because it is probably the first one of the kind in the dog on record, although this form of malignant growth has been met with in other of the lower animals. Secondly: as adding one more proof that the diseases of man and animals are quite similar. Thirdly: that the growth seemed to follow quickly after the receipt of a severe injury. Fourth, in connection with a case of secondary carcinoma of the kidney presented by Dr. Wendt, in which the secondary deposits were superficial in the kidney, the same being true in all the organs in this case.

Dr. Wendt remarked that the fact that the capsule of the tumor was entirely fibrous went to show that the growth was of central origin, rather than periosteal; for in the latter, bone spiculæ were usually found in the capsule.

Dr. C. S. Bull presented a specimen of

INTRAOCULAR AND ORBITAL SARCOMA,

from a man, aged forty-six, who noticed a failure of his sight in the spring of 1879. This loss of vision was progressive, and for about two months had been accompanied by considerable pain. I saw him in February, 1880, and found the following condition: Vision is reduced to 0; cornea clear; iris retracted; pupil closed by a membrane; tension + 2; injected ciliary vessels; eyeball sensitive to pressure. An intraocular tumor was suspected, and the patient urged to have the eye enucleated, which was declined, and he withdrew from observation and was not seen again until early in September, 1880. The eyeball was then very prominent; a growth could be felt in the orbit, and he was suffering from severe and constant pain. He consented to enucleation, which was done on the following day, in the usual manner. The whole orbital tissue was found infiltrated by the growth, and part of it was removed with the eye. The entire contents of the orbit were then cleared away, the cavity washed out with a five-per-cent solution of carbolic acid, and a careful examination made, when it was noticed that the growth had extended into the sphenoidal fissure and optic foramen. No further operative interference was deemed justifiable, and the patient was told that the tumor would doubtless recur, grow outward toward the margin of the orbit, as the tendency of these growths is: and that it eventually would probably cause his death. He of course disappeared, and has not been seen since.

Microscopical examination.—The cornea is about normal in appearance. The anterior chamber is increased in depth, owing to a retraction of the iris; and the latter is thickened and merged with the capsule of the lens. The pupil is closed by a membrane. There is no trace of the lens. The ciliary body and processes are pushed forward and inward toward the interior of the eye by the growth behind, which involves both retina and choroid, and detaches the latter in part from the sclera. There is no trace of the vitreous. Nearly the entire eyeball is occupied by a tumor, which presents somewhat different appearances in the retina and choroid: anteriorly between the iris and retina (which is partially detached) is a cheesy mass, connected with the iris and ciliary processes; and which the microscope shows to consist of a large number of small round cells, with nuclei and granular contents, and a lump of granular matter and some free-lying pigment. Behind this is the densely infiltrated retina, partially inclosing the cheesy mass just mentioned: surrounding it is the infiltration of the choroid, extending well forward to the region of the peripherical attachment of the iris and sclero-corneal junction, and partially separating the choroid from the sclera. Behind the equator, the sclera has been perforated by the growth in several places, and in some spots seems to have entirely disappeared. The neoplasm also extended back into the orbital tissue, and involved the sheath of the optic nerve and the nerve itself. Running through the growth, in the region of the choroidal infiltration, is a striated appearance, due to a rather marked development of connective tissue, which, in one or two places, extends posteriorly into the infiltrated orbital tissue. The mass of the tumor consists of small round cells, which form most of the choroidal sarcomata; but there are some pigmented cells, both round and fusiform. The growth was not very vascular until the orbital portion of the tumor was reached.

The contents of the orbit, when examined, proved to be similar to the bulk of the intraocular tumor, which belongs to the class of round-cell sarcoma.

DR. GEORGE L. PEABODY presented a specimen of

ACUTE PERICARDITIS,

typical in appearance and history.

He also presented a similar specimen, which was accompanied by croupous pneumonia and double acute pleurisy.

CONGENITAL ABSENCE OF ONE KIDNEY.

DR. PEABODY presented specimens from a female, twenty-one years old, a native of Ireland, unmarried, and a prostitute, who was admitted into the New York Hospital with acute peritonitis, and died at the end of forty-eight hours. No cause for the peritonitis was ascertained. At the autopsy it was found that the left lung had three lobes; and the right one, four. There was no kidney on the left side. On the right side, the kidney occupied its usual situation, was double the normal size, and connected with the aorta by two renal arteries, one going to the upper, and the other to the lower part of the organ. The renal veins were essentially normal. There was no renal artery on the left side, but both suprarenal capsules were present. The ureter was about double the usual size and entered the bladder at the usual situation. The left half of the *trigone vesicæ* could not be made out. The uterus was *bicornis,* though the right was better developed than the left horn. The cervix was large, and readily admitted the little finger. The vagina was essentially normal. The ovaries were healthy, and a recent corpus luteum was prominent on the right. There was no evidence that the woman had ever borne children, and the cervix uteri was not lacerated. She gave a history of chronic alcoholism, and the kidney presented the lesions of acute nephritis.

Dr. Peabody gave the following *résumé* of the literature of the subject.

The latest allusion to the condition that I find is in the March number of *Virchow's Archives* for this year. A case is there reported by Dr. Falk, of Berlin, which is the forty-fifth on record, and the right kidney was absent. Of forty-four cases tabulated by Beumer, of Greifswald, in No. 72 of *Virchow's Archives* for 1878, many showed unusual relations of the blood-vessels, ureters, suprarenal capsules, defects and anomalies in the genito-urinary tract of various degrees of importance: and one is noticeable as having exhibited in several places marked stenosis of the aorta. In twenty-two of these cases the right kidney was absent, in twenty-two the left, while in the others we are not told which one was missing. Twenty-seven cases are recorded among males, and thirteen (besides my own) in females, while in five cases the sex is not given The difference in frequency of the occurrence in the two sexes is to be regarded, I think, as only apparent, for the reason, as Beumer says, that the whole number is too small to admit of correct generalization, and because a much larger number of male bodies than of female find their way to the post-mortem table.

In some of these cases, rudimentary renal vessels were present, as well as also an immature ureter; although in most cases there was neither ureter nor vessels on the side of the missing kidney. In some cases, as in my own, the half of the *trigonum vesicæ,* which would have been in relation with the absent ureter, was not to be found. The suprarenal capsules are generally present upon both sides, their absence in such subjects having been recorded only in five instances.

In one case, where the left kidney was absent, the left seminal vesicle was also very small, the other one being proportionately larger than normal. Similar relations are occasionally observed in regard to the testicles. In one specimen, where the male genital organs were well developed, a uterus, whose length was 38 mm., and a vagina, whose length was 25 mm., is recorded (?).

Among women, defects and anomalies in the genital apparatus seem to be more frequent than among men. Of the thirteen cases recorded prior to mine among females, eight showed anomalies. Usually the uterus, occasionally the vagina, rarely the ovary, is the affected organ. The uterus is sometimes double, sometimes normal, sometimes unicornis, sometimes (as in my case) bicornis. When the uterus is bicornis, the horn on the side of the kidney is usually larger and better developed than the other. The vagina is occasionally double. The ovary has also been noticed to be small, without follicles, and misplaced.

The single kidney is always larger and heavier than normal, with blood-vessels and ureter proportionately increased in size. In forty-five cases, the kidney was unhealthy in twenty-three, showing that the liability to disease is increased by the abnormality. Of these twenty-three cases, nearly all died of the kidney lesion; in six of them there were other diseases present besides the renal affection. In ten cases, calculi were found in the pelvis or ureter; and in several cases death was caused by nephritis calculosa: while in five a calculus occluded the ureter, causing renal colic, retention of urine and death.

It is a matter of some interest to ascertain the cause of the increase in the size of the single kidney in such cases as these. Are the individual elements, the glomeruli, the tubes, and the vessels augmented in size? Are the epithelial cells larger than usual? Elaborate investigations have been made upon these subjects, and the conclusions have been reached that none of these changes take place, but that the increased bulk is due to an actual hyperplasia, or increased production of all the individual kidney elements; and not to an hypertrophy of the individual elements of a previously normal organ.

Dr. Putnam-Jacobi suggested that the peritonitis might have been due to nephritis, in the same way as pleurisy, meningitis, etc., occur in connection with chronic Bright's disease.

Dr. Peabody thought, inasmuch as the nephritis was of the acute variety, that the peritonitis might not be secondary to it. The urine contained albumen, but no casts, and although the quantity was abnormally small, he thought that would not throw much light upon the condition of the kidney, because the reduction in quantity might be due to the peritonitis.

SUPPOSED ABSENCE OF ONE KIDNEY.

By **Dr. Walter De F. Day**, *Candidate*, 1867.—Sarah Sneeden, aged 15 years, a native of the United States, was admitted to the "House of Mercy," a reformatory school for girls in 1866, about a year ago. She was subjected to the usual discipline of the house, which did not necessitate any severe exertion; but it was noticed that she became easily fatigued, and that, either from indolence or indisposition, she was disposed to evade the work assigned to her.

During the year 1866, she had several attacks of spasms, accompanied in one instance by vomiting, but as they were of short duration, terminating before she could be seen by those in charge of the institution, and as hysteria, in its different forms, was not uncommon among the inmates, her case was not considered of sufficient importance to be brought under the notice of the visiting physician.

On the 8th of last September, she was found in the infirmary of the institution, complaining of alternating chills and febrile movements. Her complexion was pale and waxy, and her muscular system was markedly emaciated. Though the chills showed no well-marked paroxysms, yet, in view of the prevalence of intermittent fever among the inmates, she was supposed to be suffering from malarious influences, and was placed upon the use of iron and quinine. She did not improve under this treatment, but grew heavy and was disposed to sleep a good portion of the time; and on the 19th of September she had a well-marked convulsion, which led to an examination of the urine, which was found to contain a few fatty casts, but no albumen.

On the 25th of September, she was passing half a chamberful of smoky urine, whose specific gravity was 1010. Albumen was present in considerable quantities, but no casts could again be found, either upon this, or any subsequent examination. There was no ascites, nor anasarca; the pupils were widely dilated, and but slightly responsive to light; the pulse was 100 per minute; the respiration was 13, the expiration being forced and sudden; temperature 99½; bowels costive. Her mind was very much clouded, but she could be roused to answering questions in monosyllables. Her tongue was moist, and slightly furred. Spasmodic twitchings of the arms and legs were very marked.—Ordered potass. acetatis and tinct. ferri muriatis thrice a day; warm pediluvia night and morning, while in bed; and a simple rectal injection every other day, so long as she remained costive.

Two days afterwards, September 27th, the pulse was 95, tongue moist, respiration more natural, temperature normal, pupils not so much dilated, but the hebetude was still considerable, and the spasmodic action of the muscles only diminished in intensity. Pus having been found in the urine passed voluntarily, a catheter was introduced into the bladder, and the water thus drawn off contained a small quantity of pus, as proved by the microscope and acetic acid. At this time her appetite was remarkably good.

Three days afterwards, September 30th, her condition had much improved. The pupils were natural and the pulse 75. Her mind was perfectly clear when seen by the physician, but she inclined to wander through the night. During the last two days there has been some diarrhœa and one attack of vomiting.

Three days afterwards, Oct. 3d, the tongue was somewhat dry in the centre: pulse 80. She complained of neuralgic pains in the abdomen and extremities: her mind was much disturbed, she refused to take medicine for fear of being poisoned; and had unlocalized pain in the head. Her appetite was still good. Erythematous patches were discovered over the sacrum and about the trochanter of the left side.

No new symptoms were developed during the remainder of her sickness. There was no return of the convulsions, but her tongue became more dry and the pulse weaker; she slept almost constantly, until the morning of the 16th, when she died in a state of coma at 3 A.M.

The *autopsy*, 10 hours after death, was made under considerable inconveniences, and was obliged to be confined to the abdominal cavity.

The *liver* and *spleen* were normal. The *right kidney* was first removed: it was pale, with an occasional appearance of arborescence, and was studded with granular points; weight 3½ oz. Its capsule was not particularly adherent, but its substance was firm. On section, the line of demarcation between the cortical and medullary portion was perceptible in two places only and the pyramids were effaced, excepting in two or three points. A microscopical examination, by Dr. W. H. Draper, showed great thickening of the *stroma*, which contained some granular fat; and the epithelium of the tubuli uriniferi was also filled with small fat-granules.

The *left kidney* was sought for in its usual position, but was not found; still a collection of cysts from 15 to 20 in number, an inch and a half by an inch in dimensions and traversed by several blood-vessels of the size of a crow-quill, was discovered imbedded in a mass of fatty tissue attached to the under surface of the mesocolon. As there was considerable laceration and disturbance of the parts, it is impossible to say where these cysts originally lay.

No kidney being discoverable on the left side, the left ureter was traced from the bladder upward, and was found atrophied through its whole course, being pervious for five inches only above the bladder, and dwindling into a filament in the direction of the kidney.

The mass of cysts was examined microscopically by Dr. Francis Delafield, but no true kidney structure could be found in it.

The mucous membrane of the bladder was apparently healthy, but on its superior aspect, and imbedded in the vesical walls, was a tumor, which on being incised, discharged a few drops of a sero-sanguinolent fluid, due to the breaking down of its centre.

The appendages of the uterus were filled with tumors from the size of the head of a pin to that of an English walnut, but as they have not been as yet sufficiently examined, they will be presented at subsequent meeting of the Society.

DR. C. K. BRIDDON presented a specimen of

SARCOMA OF THE UPPER JAW REMOVED AFTER PRELIMINARY LARYNGO-TRACHEOTOMY AND PARTIAL NARCOSIS BY CHLOROFORM AND MORPHIA.

The specimen was referred to the Committee on Microscopy. The history was furnished by Dr. W. S. Seamans, House Surgeon of the Colored Home.

S. G. W——, native of United States, fifty-four years old, married, mulatto, was admitted to the hospital March 24th, 1881. His family history was irrelevant to his present disease. He had had the usual diseases of childhood, also malaria (tertian type) ten years ago; and gonorrhœa twenty-five years ago, but denies all other forms of venereal disease. The epitrochlear glands are enlarged. No alopecia—no rheumatism. With these exceptions he enjoyed good health until five months ago, when he noticed "an enlargement" about the size of a Lima bean, and firm to the feel, on the inside of the middle portion of the upper right alveolar process, at the junction of the gums and the teeth.

This tumor was neither painful nor tender on pressure, but kept on growing until it involved the whole of the palate on the right side, to such an extent that it greatly interfered with the opening of his mouth. Two months after its first appearance it commenced to ulcerate, although from the beginning of its growth it had been treated with washes, etc. One year ago, all the teeth of the right upper jaw, being in bad condition, were extracted. His appetite was fair, bowels regular, tongue clean. Pulse, 76; respiration, 20; temperature, 98°. Urine yellow, acid, 1026; albumen, none; sugar, none. Heart and lungs healthy.

Inspection.—The right cheek was decidedly prominent; the contents of the orbit were not displaced, and both nasal passages were free; but the right half of the roof of the mouth was projected downward by a growth of a light maroon color, whose surface was granular and continuous with the alveolar process. There was a suspicious appearance about the mucous membrane covering the posterior portion of the lower jaw, but this was regarded as probably nothing more than superficial erosion, due to irritation caused by discharge from the disease above. There was an enlarged lympathic gland in the submaxillary space: and the growth in the sup. max. was supposed to be malignant, probably sarcomatous; hence its entire removal was recommended and agreed to by the patient.

Operation, March 29th.—To obviate the danger of asphyxia from the entrance of blood into the air passages, it was determined to make a preliminary laryngotomy; and it was also proposed to partially narcotize the patient according to the plan suggested first by Nussbaum, of Munich, and carried out in several operations about the face by Prof. Thiersch, of Leipsic. The patient received a subcutaneous injection of twelve drops of Magendie's solution of morphia, and chloroform was administered to commencing rigidity: then an incision was made through the coverings of the crico-thyroid space; and as the interval between those cartilages was limited, the cut was enlarged downward, by dividing the cricoid. A hard-rubber canula was now introduced, communicating through the medium of eighteen inches of soft tubing with a funnel covered with flannel; on which it was only occasionally necessary to drop a few drops of chloroform to keep the patient in a condition insensible to pain, yet able to assist the operator by such movements as were deemed necessary. A large sponge was then passed back into the fauces, and the operation on the face was begun by a long cut commencing below the right internal canthus and terminating over the zygomatic process of the malar bone: the periosteum was now lifted from the floor of the orbit, and a second incision was carried from the commencement of the first to just outside the alar cartilage. The vessels divided in all these cuts were controlled and then the termination of the last incision was carried round the nasal aperture and through the medium line of the upper lip. By making the divisions in the soft parts in the manner described, a considerable amount of hemorrhage into the mouth was prevented. The remaining steps of the operation were those usual in excision of the whole bone, viz. : the nasal and palatal processes were divided: then the zygomatic process of the malar and the mass were removed by evulsion. There remained in the depth of the wound, and incorporated with the connective tissue covering the pterygoids, a material that had evidently been continuous with the neoplasm that filled the antrum : this was detached by scissors, and the surface from which it was removed was cauterized with Paquelin. As the adjacent buccal mucous membrane was also infiltrated with the same elements, it was dissected off and cauterized with solution chloride of zinc. A gland in the submaxillar triangle found in process of caseation was dissected out: and finally the soft parts were approximated with two pin-, and a number of interrupted sutures.

The behavior of the patient under this method for partial narcosis was extremely satisfactory; he responded to questions as well as it was possible for a person to do with a hole in his air tube: and he afterwards insisted he was cognizant of all that was going on, though he felt no pain; besides the condition of semi-insensibility was maintained with very little chloroform.

On examining the parts removed it was found that the orbital plate was the only portion of the bone that had not been invaded by the disease. There was a small perforation of the internal surface leading into the middle meatus; the facial and zygomatic planes were almost entirely destroyed; the palatal process was replaced with the same growth that filled the antrum, and was evidently sarcomatous in character.

March 29th.—8 P.M.: The patient bore the operation well, and experienced no immediate ill-effects. On being questioned, he said he knew everything that occurred throughout the performance, and at that time felt no pain whatever. 10 P.M.: pulse 94; respiration, 22 ; temperature, 101° F.

March 30th.—8 A.M. : Rested well during the night; and feels well with the exception of a slight headache. Pulse, 90 ; respiration, 20; temperature, 100.2° F. —7 P.M.: Has taken plenty of nourishment through a glass tube ; pulse, 92; respiration, 20; temperature, 100.3° F.

March 31st.—8 A.M. : General condition unchanged ; pulse, 92; respiration, 20; temperature, 100° F. —7 P.M.; pulse, 104; respiration, 20 ; temperature, 101° F.

April 1st.—8 A.M. ; Still complains of slight headache, otherwise his condition is good ; pulse, 100 ; respiration, 20 ; temperature, 101° F. —7 P.M.: pulse,104; respiration, 21; temperature, 103°. Is taking plenty of nourishment.

April 2d.—Pulse, 100 ; respiration, 20 ; temperature, 101° F.

April 5th.—Condition much same since last report ; pulse, 108 ; respiration, 24 ; temperature, 102.1° F. Removed every other, or second suture this A.M. and found the wound closing by first intention.

April 6th.—Patient says he feels comfortable; pulse, 94; respiration, 32 ; temperature, 101.2° F. His mouth has been syringed out three or four times a day with a saturated solution of salicylic acid.

April 7th.—8 A.M. : Pulse, 96 ; respiration, 30 ; temperature, 101.3° F. Last night he was very restless, indeed, and had atropia sulph., gr. $\frac{1}{60}$, morphia sulph., gr. $\frac{1}{4}$. —5 P.M.: Pulse, 102 ; respiration, 32 ; temperature, 103.1° F.

April 9th.—Patient's condition unchanged ; pulse, 100 ; respiration, 28 ; temperature, 102° F.

April 10th.—Comfortable ; pulse, 100 ; respiration, 26 ; temperature, 101.2° F. After this date the body heat declined to the normal, he gradually gained in strength and flesh, and by the 18th he was sitting up, and expressed himself as feeling better than he did before the operation. The sloughs all separated, leaving a healthy granulating surface exposed to view ; the suspicious appearance about the alveolar process of the lower jaw had disappeared ; and altogether his local and general condition was most gratifying.

SEPTIC PLEURISY IN AN INFANT FOUR DAYS OLD.

DR. J. LEWIS SMITH presented the lungs of a child four days old, which exhibited in a marked degree the plastic exudation of acute pleurisy. He gave the following history of the case. One week previously he delivered a primiparous woman with the long forceps. The labor was simply tedious, but the operation was performed with great care, and during the twenty-four hours immediately succeeding, the patient seemed to be progressing favorably. On the second morning, however, her temperature was 105½° F.; pulse, 120; and respiration, 34. There had been no chill, and thinking that he had to deal with puerperal fever, he ordered quinine in doses of five grains, every four hours; also, *one* grain of opium every three hours, and, externally, camphorated oil and turpentine, with poultices. The patient progressed satisfactorily, but on the second day of the treatment, salicylic acid was added every four hours; when the temperature soon began to fall and reached 102½° F. in the evening.

The baby was unusually quiet for two days, but when aroused seemed lively and took the breast. On the third day it became fretful, its respiration was accelerated, and it moaned. On the following day Dr. Smith found absolute dulness on percussion over the right side of the chest. The temperature in the rectum was normal, but death occurred in the evening of that day. The duration of the sero-fibrinous pleuritis was apparently only twenty-four hours.

Dr. Smith then referred to a case of peritonitis which terminated fatally after only one day's sickness: and as it was recognized that septicæmia was one of the causes of peritonitis, he supposed that in this case of pleurisy he had to deal with a serous inflammation of like character. A practical question was whether the child received the poison by nursing or was born with it. Were the conditions such that at the birth both mother and child became affected—one with a high fever, and the other with a serous inflammation?

Dr. Ripley remarked that, so far as he knew, physicians were accustomed to allow children to nurse puerperally sick mothers. He regarded it as the general practice, where the mother had milk, to put the child to the breast; and this was done with the idea that if she recovered, rather speedily, she could continue to nurse the child. He did not remember to have seen any case of inflammation which could be attributed to that line of practice. New-born infants sometimes had pleurisy independent of instrumental operations, or puerperal fever; and it was not very uncommon for a child to die of peritonitis irrespective of puerperal fever.

Dr. Smith said that he should be still inclined to believe that the condition of the mother and that of the child were coincident.

The Society then went into executive session.

STATED MEETING, APRIL 27TH, 1881.

DR. T. E. SATTERTHWAITE, *President, in the Chair.*
DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Cerebro-spinal meningitis. By DR. FREDERICK A. BURRALL.
2. Specimens illustrating the traumatic origin of cancer. By DR. ARPAD P. GERSTER.
3. Epithelioma of the lip, with spontaneous healing. By DR. JOHN H. RIPLEY.
4. Dermoid tumor of the pharynx. By DR. CLINTON WAGNER.
5. Complete, reducible, inguinal epiplocele with an undescended testicle, behind the peritoneum, and at the side of the ring.................. By DR. HENRY N. HEINEMAN.
6. Transposition of the lobes of the liver. By DR. HENRY N. HEINEMAN.
7. Foreign body removed from the nose. By DR. BEVERLEY ROBINSON.
8. Multilocular ovarian tumor, with rupture of it from accidental injury, followed by an amelioration of the symptoms; but subsequent death from constriction of the intestines .... By the PRESIDENT.

CEREBRO-SPINAL MENINGITIS.

DR. F. A. BURRALL, on invitation, presented specimens illustrating the lesions of cerebro-spinal meningitis, accompanied with the following history, furnished by Dr. John F. Duffield, Acting House Physician at the Presbyterian Hospital:

Susan McArthur, aged nine years, a native of New York, was admitted to the service of Dr. F. A. Burrall, April 13th, 1881. She was brought in an ambulance in a semi-comatose condition, and had been living in a miserable tenement-house. Anything like a direct rational history of the child's condition previous to admission could not be obtained; but her hygienic surroundings had been extremely bad in every particular, especially as regards drainage, ventilation, and overcrowding; and her father and mother were both intemperate. She seemed to have been in her usual health up to the time she was taken sick, and no other cases of illness were seen in the house at the time; although it was subsequently discovered that a child in the same building had been taken ill at about the same time, and died four days later, with similar symptoms.

As far as could be ascertained, on the afternoon of April 10th, she had frontal headache and abdominal cramps, soon followed by diarrhœa, and what was evidently projectile vomiting. There was no reliable history of a chill, but an almost immediate rise of temperature. She did not complain particularly of headache, but of a general feeling of soreness; while the vomiting and diarrhœa continued at intervals for twenty-four to thirty-six hours only, when they ceased; but a few hours after she began to grow dull, and gradually lapsed into a semi-comatose condition.

On admission: She was poorly nourished and stunted in growth, almost completely comatose, and with difficulty could be aroused enough to protrude her tongue. She had an anxious expression, her cheeks were flushed, the left apparently more than the right; ptosis of both eyelids; deeply congested conjunctivæ; dilated but equal pupils, which responded slowly to light; no appreciable photophobia, dry, brown tongue, and sordes on the teeth. Well-marked opisthotonos, the whole body being in a state of flexion. All attempts at bending forward the head were evidently painful; but there are no other tender points, even on rather forcible manipulation, and no general hyperæsthesia. The child lay perfectly quiet, with her back in a curved position, except, at stated intervals of from five to fifteen minutes, when she began a series of jactitations (not convulsions): raising the right hand to the head, as if in pain; scratching her nose, boring her head into the pillow; and at times tossing herself around until she had made a complete circuit of the bed. She also gave at these times a sharp, moaning cry, which is the only sound she uttered. These attacks lasted from a few seconds to a minute.

Passes urine and fæces freely. Physical examination of heart and lungs negative. Temperature, 102½° F.; pulse, 115; no eruption; no vomiting.

Examination of urine—Specific gravity, 1028; acid; one-fourth albumen per volume; no casts; but loaded with urates.

Treatment.—Sinapisms to nape of neck; after a mustard-bath; ♏ iv. Magendie hypodermically: with the effect of somewhat shortening the duration of the paroxysms and diminishing their intensity.

April 14th.—Pulse, 74, regular and moderately full; temperature, 101¼°. Opisthotonos more marked; pupils slightly contracted, but equal, and still responding feebly to light. Cannot be aroused, though she takes nourishment freely by mouth. No eruption. No general hyperæsthesia. The jactitations continued at about the same intervals and with the same intensity. Ordered hot mustard-bath t. i. d., with continuous strong sinapisms to the nape of the neck, which seemed to quiet her somewhat. Hydrarg. chlorid. mite, gr. ⅙, every hour until free fecal movements took place: four doses were sufficient. Iodid. potass. gr. v. doses every two hours; brom. potass., gr. x., every hour, until ʒ j. was given: with slight, if any effect. Milk with brandy, in proportion of ℥ ss. to ℥ iv. ad lib. —8 P.M. Pulse, 132, considerably weaker, but regular; temperature, 102½°; respiration shallow, but regular, averaging 28. General condition unchanged; tongue very dirty, but moist; sordes increasing. Face deeply flushed, and countenance getting dusky. No lung-complications. McMunn's elixir opii, ʒ ss. in divided doses, quieted her somewhat during the night.

April 15th, A.M.—Pulse, 90, non-intermittent; temperature, 101¾°. Opisthotonos increased; head bent sharply back to an extreme degree, while the vertebral column is bowed considerably. Left side paralyzed. Internal strabismus on the left side; pupils dilated, fixed, and non-responsive to light; conjunctivæ excessively congested. Well-marked abundant petechial eruption on the shoulders, arms, thighs, knees, buttocks, and trunk. Dysphagia. Hot baths continued. Bromid. and McMunn were given freely during the day, with double doses of brandy; but the paroxysms became more violent, and toward evening began to be convulsive in character.

6 P.M.—Pulse, 168 approximately; very weak, intermittent, and fluttering. Opisthonos extreme; still no general or local hyperæsthesia. Face very dusky; beginning œdema of lungs. Respirations still regular, No. 32; temperature 106°.

9 P.M.—Pulse not perceptible. Temperature, 106¼°. Died after a well-marked convulsion.

Autopsy seventeen and one-half hours after death.—Body fairly nourished. Rigor mortis quite well marked. The posterior and lateral surfaces of the body tinged with livid spots of various sizes, while the anterior surfaces of both arms and the upper part of both fore-arms and knees exhibited little clusters of punctate spots, each of the size of the head of a small pin: some spots were also seen over the free border of the ribs on the right side. The peritoneum and all the serous membranes exposed, presented a very deep, almost violet color. The pericardium contained a drachm of clear serum; membrane normal. The heart weighed three ounces and one-half; valves normal; the right ventricle and auricle contained white clots; the left ventricle, fluid blood. The left pleural cavity showed some old adhesions at the base of the lung. The left lung weighed four and one-half ounces; hypostatic congestion of the lower lobe; crepitant throughout; diaphragmatic pleurisy. The right lung weighed five and one-half ounces, and crepitated throughout. The spleen weighed two and one-half ounces. The liver weighed thirty ounces, was congested, and also softer than normal. The right kidney weighed two, the left two and one-half ounces, rather soft; cortices fatty, no irregularity in the markings. The brain weighed two pounds fourteen ounces; was intensely congested, and in the meshes of the pia mater were collections of purulent material. The spinal blood-vessels, after opening the dura mater of the cord, were found distended with blood and in the meshes of the pia collections of pus were seen.

DR. RIPLEY remarked that the scantiness of the exudation and the gravity of the symptoms seemed to be the peculiarity of the case.

DR. HEINEMAN observed that cases with marked symptoms occurred, in which, at the autopsy, little or no lesion was found, except congestion of the pia mater. The lesions of cerebro-spinal meningitis are either simple congestion or congestion with a little patch or patches of exudation; or, and less frequently, a great deal of exudation. To find a large quantity of exudation is rather the exception than the rule; although some epidemics are characterized by an abundance of inflammatory products, while in others the lesions are less marked.

THE PRESIDENT noticed that in Dr. Burrall's specimen the plastic exudation was limited, while the congestion of the pia mater was very extensive.

DR. RIPLEY thought that exudation was almost always present and, as a rule, decidedly abundant. Rodenstein had made autopsies, and often found scarcely any lesion, but believed that coagulated material was always preents.

DR. HEINEMAN stated that there was one exception to Dr. Ripley's statement—namely, that patients might live four or five days with well-marked cerebro-spinal meningitis, and at the autopsy only congestion of the meninges be found.

DR. RIPLEY claimed, as a clinical fact, that there is no disease in which the symptoms are so irregular as in cerebro-spinal meningitis. There are sudden and excessive variations in temperature, and so with the nervous symptoms, the condition of the pupil, etc.

NOTE.—Cerebro-spinal meningitis is a constitutional disease with local manifestations. The epidemic of 1872 in this city was preceded in 1871 by one of the same kind in horses, of which many perished, especially in the large stables of the car and stage lines. Infectious pharyngeal and pneumonic inflammations are apt to prevail at the same time: all of them arising from bad sanitary conditions. Soldiers in barracks and the city poor in tenement houses are apt to suffer most severely, and unusually severe and multiple cases are most common where there is a filthy state of domiciles and their surroundings. In this respect, says J. Lewis Smith, cerebro-spinal meningitis corresponds with other grave epidemic diseases, like Asiatic cholera (and diphtheria), whose ravages are largely in the crowded and dirty quarters of the poor and degraded. In 1872, three-fourths of the cases were in children under ten years of age. It is not known whether the renal and fæcal excretions of human beings, or horses, or other animals can convey the disease.

See also BULLETIN, p. 102.

THREE SPECIMENS ILLUSTRATING THE TRAUMATIC ORIGIN OF CANCER.

Dr. A. P. Gerster presented a specimen of cancer of the leg, in which the traumatic origin of the lesion was well established. A woman, aged sixty years, received on the outer margin of the sole of the foot, a simple erosion of the skin from stepping on a nail; but the injury terminated in an ulcer, which repeated itself several times; until finally a small elevated sore formed, and continued to enlarge slowly for thirteen years. It gave her some trouble in walking, but she did not deem it necessary to consult a physician; for whenever she gave herself rest for ten or twelve days, the entire ulcer, about three inches square, became covered with a newly formed epidermis and the discharge ceased: but, as soon as she began to use the foot, the previous symptoms all returned. At first Dr. Gerster did not suspect its serious character, but supposed he had to deal with a granuloma caused by the constant irritation produced by walking. In August, 1877, it was excised, the wound healing by second intention, and remaining closed for about six weeks. Four months afterward the foot presented a very formidable appearance: its surface was covered with irregularly shaped tumors, some of them of the normal color of the skin, while others had a dark tint pointing to the melanotic character of the disease; and a number of lymphatic glands in Scarpa's space had become enlarged. Dr. Gerster proposed amputation, which he performed in May, 1878. After the operation the patient said that for three or four weeks she had had double vision. During the period occupied by the stump in healing, the diplopia increased, and exophthalmos took place on the left side: at the same time small tumors appeared in the skin of the entire body, some of them being large enough to be visible to the naked eye, while others only could be felt as the hand passed over the surface. The pain in the eye became so excruciating that the patient committed suicide with morphine. The nodules had been examined microscopically, and were found to be cancer containing only a very few connective-tissue elements. Besides the integuments, almost every internal organ was involved. Dr. Gerster was positive that, when the tumor was first excised, in

1877, none of the internal organs were diseased; but at the autopsy deposits were found in the brain, heart, pericardium, anterior surface of the peritoneum, in the liver, kidneys, and lungs.

The *second specimen* was a foot which he had removed from a man fifty-one years old, who from his childhood had had a small wart on the tip of the outer malleolus. When he was twenty-one years of age, the wart gave him a good deal of trouble, and a surgeon removed it with the actual cautery. The man said that it was not removed completely, but gave him no serious trouble until about six months ago, when it began to bleed profusely on the slightest irritation, and enormous deposits of epithelial matter formed upon the top of the tumor. A small portion was removed and examined microscopically, and was found to be epithelial cancer. Amputation was performed ten days ago.

A *third case* of a similar character occurred in his practice about three years ago. A man, fifty years old, a baker, received, thirty years ago, a severe burn extending over a large portion of the right lower extremity, on its frontal aspect. An extensive cicatrix remained, which did not give him any trouble until eleven months ago, when he hit his shin against a barrel: a small abrasion remained which did not heal, but began to enlarge, secrete profusely, and finally presented all the external appearances of an epithelial cancer. Amputation was performed, and examination of the growth proved it to be a cancer, of the epithelial variety.

In the first and second cases, the bones were not involved: but in the third, the cancer penetrated the tibia and destroyed almost the entire depth of the bone; so much so that one time, when the man jumped off a wagon, he heard a crackling sound and felt that something yielded. Fracture did not occur, but impaction of the bone had taken place.

In answer to a question, Dr. Gerster said that the exophthalmos in his first case was due to a cancerous tumor in the posterior part of the orbit: but there was no evidence of communication with the cranial cavity, although there were metastatic deposits in the brain. The optic nerve, however, was not examined.

DR. JOHN H. RIPLEY presented a specimen of

EPITHELIOMA OF THE LIP WITH SPONTANEOUS HEALING OF THE ORIGINAL LESION,

with the following history:

In June last he saw, with Dr. Burton, G——, an Irishman, sixty-seven years old, supposed to have epithelioma of the lip. He found the patient, a tall, thin, feeble old man, suffering from a lozenge-shaped superficial ulcer, about an inch long in its greatest diameter, and situated in the vermilion border of the lower lip, near the centre. The edges of the sore were indurated, and the secretion from it thin and watery. The sublingual glands were apparently enlarged.

The patient stated that about three years before he noticed a slight fissure of the lip, which troubled him a good deal with a burning pain: and which did not heal, but remained in about the same condition for a year. It then gradually enlarged, until it resulted in the ulcer which I saw. From the locality of the sore, its long duration and peculiar history, the submental infiltration, and the age of the patient, Dr. Ripley supposed it to be epithelial cancer. There was no history of cancer in the family, and no evidence of syphilis in the patient. Considering his general condition and the fact that one lung was very much crippled by chronic pleurisy, and that both were the seat of chronic vesicular emphysema, he did not think an operation advisable.

In September he saw the case a second time, and found that the infiltration below the jaw had increased very much, and now extended around both sides so as apparently to involve both submaxillary glands: the ulcer remained about the same. In January, 1881, he saw the case a third time. The ulcer on the lip was entirely healed, and had been since Christmas; but the secondary deposits had increased, and spots of softening were felt in the right sublingual and left submaxillary regions. In February, rupture occurred at both these points, with the subsequent escape of thin, offensive, purulent matter.

During this present month he had seen the patient several times. The first ulcer still remains healed; a linear cicatrix with puckering of the adjacent parts only remaining to mark the site of the original lesion. Infiltration of the parts below, however, is progressing, and the destruction of tissue has continued. In the right sublingual region, a deep, crater-like ulcer exists, the size of a copper penny; in the left submaxillary region there is a tumor as large as a pullet's egg, having several small sinuses leading into its interior; and besides these openings there are two large, angry ulcers at its summit. The treatment of the case, until within a couple of weeks, has been of the most simple and primitive kind: locally, the patient was in the habit of keeping a small piece of dampened white paper over the ulcer of the lip; and constitutionally, a cough mixture had been taken. No other treatment. These specimens, clipped from the ragged edges and interior of the ulcers, were examined microscopically by himself, and believed to show the characteristics of epithelioma. They were subsequently examined by Drs. Janeway, Satterthwaite, and Hegeman, with the same result.

Dr. Ripley remarked that he presented the case as the second one in which he had known a primary cancerous ulcer to heal. The first was reported by Dr. Beverley Robinson, and was a case of epithelioma of the larynx. Another had been reported in Holmes' system of surgery, but Dr. Ripley thought the diagnosis was doubtful.

Dr. Gerster asked Dr. Ripley if he was sure that the ulcer had completely healed, and that the cicatrix did not show a cancroidal condition.

Dr. Ripley answered that it was to all appearence thoroughly healed and the lip was supple.

Dr. Howe remarked that when a wound heals by first intention that fact shows that no cancerous tissue is left at the point where the union has taken place.

The President thought that point had been decided otherwise.

Dr. Briddon had seen the process of repair and the action of cancerous destruction going on in the same ulcer, at the same time.

Dr. Howe believed that the process of repair could not go on in the midst of cancerous tissue.

Dr. Briddon remarked that, in the amputation of the breast for cancer, it was rare that the surgeon went completely outside of the cancerous infiltration, and yet the process of union went on perfectly.

Dr. Howe insisted that perfect union was strong proof that there was no cancerous material remaining in the edges of the wound.

Dr. Briddon stated that he had seen carcinomatous tumors slough and cicatrize, the scars remaining apparently sound for varying periods of time; but in all the cases he had observed the disease returned: in one case, the process of necrosis occurred twice in the same place. With reference to the question under discussion, he had seen the processes of destruction and repair going on side by side, at the same time, in epitheliomatous patches; but he did not remember to have observed an instance of complete repair, save in the cases where the parts had sloughed after the application of some destructive agent.

Dr. Gerster had watched cases in which the ulcer had healed and remained so for months, and he thought it had been stated by surgeons that the same thing had occurred in cancer of the breast. With reference to Dr. Howe's statement that cancerous tissue is unable to form a cicatrix, he remarked that such tissue did not consist of cells alone, but of connective-tissue elements also, and where the latter existed in abundance, there was a great tendency to the formation of a cicatrix.

The President asked Dr. Beverley Robinson whether the case of epithelioma of the larynx which he had reported remained cured.

Dr. Robinson replied that the patient had died; the ulcer in the larynx, however, remained healed.

Dr. Ripley could account for the healing by the fact that cancerous deposit had occurred in another part of the body ?

Dr. Andrew R. Robinson thought that Dr. Ripley's case could be explained in a simple manner, namely, that it was a form of mild epithelioma which gave rise to the secondary deposit, and at the same time the primary ulcer healed. Certainly such cases were not difficult to relieve: and he thought that it was not unusual for death to occur in consequence of secondary deposits after the primary lesion had healed. The case had some treatment, and he would regard it in the same light as though excision had been performed. Epithelioma of the face and lip can be cured.

DR. RIPLEY said that in the case he had just reported there was practically no treatment. Moreover, he thought that epithelioma of the lip and face could not be cured so that the patient would not be liable to its return.

THE PRESIDENT added his testimony, with reference to cure, in many of these cases of cancer; if the connective tissue is greatly in excess of the cellular elements, the former squeezes the latter to death, and destroys the ulcer in that way. Sometimes the connective tissue was made to preponderate by the use of the cautery or caustic paste. He had known of cases being partially cured—that is, the primary lesion had healed under the use of poultices of various herbs, and nothing but a smooth surface remained. That the disease returned ultimately he believed was generally true.

DR. ROBINSON had seen several cases in which complete cures, so far as known, had been effected by local treatment. Anything which would produce an acute inflammatory process might give rise to connective-tissue proliferation, which would crush the cellular elements and be followed by cicatrization.

NOTE.—See BULLETIN, pages 18 to 23.

DR. DELAVAN, on behalf of Dr. Clinton Wagner, presented a

DERMOID TUMOR OF THE PHARYNX.

Patient aged twenty, Irish, single, domestic. Previous history good. No heredity. Stated that two weeks before the operation she noticed something wrong with her throat, which had grown rapidly worse. On examination, patient is a well-developed, healthy girl, with no signs whatever of any diathesis; mouth, tongue, soft palate (anteriorly), tonsils and pharynx normal, with the exception of a slight amount of pharyngeal catarrh, and the following extraordinary appearance: Upon the left side of the pharynx is a foreign body, which hangs downward from behind the velum a distance of seven-eighths of an inch, and extends from near the median line toward the left nearly to the lateral wall of the pharynx. The surface of this body is pale, and as no blood-vessels are apparent upon it, it offers a striking contrast with the neighboring parts. The mass is freely movable and flattened in its antero-posterior diameter to such an extent that, while touching the posterior wall of the pharyx, it does not project anteriorly beyond the middle of the tonsil. Rhinoscopic examination demonstrates clearly that the body is a tumor, springing by a pedicle from the soft palate. Its attachment corresponds with a space located one-fourth of an inch to the left of the median line, midway between the lower margin of the velum and the lower border of the left nasal fossa. Dr. Wagner, believing from the history of the case that the growth was recent, and likely to increase rapidly in bulk, and that, from the position and size of its pedicle, its removal could be accomplished without much difficulty, decided to operate upon it at once. The operation consisted essentially in dragging the tumor downward into the pharynx as far as possible, and then dividing the pedicle. This apparent simple procedure was attended with unexpected difficulty, for, instead of yielding readily to the knife, the tumor proved to be so dense and resisting that great force was required to effect its separation. Copious hemorrhage followed, but was speedily checked by ordinary methods. The portion of the tumor removed, upon careful examination and dissection, presented the following characteristics: It is an irregular ovoid mass, flattened from before backward: about seven-eighths of an inch broad, three-fourths of an inch in its vertical diameter, and from three-sixteenths to one-fourth of an inch in thickness. It is thickest at its margins, while its middle and anterior surface is slightly concave. Its surface is covered with an integument bearing no resemblance whatever to mucous membrane, and furnished with fine, but distinctly visible hairs. Beneath the integument is a layer of fat, and underneath the fat are two plates of cartilage. Further dissection demonstrated the existence of three cartilaginous placques, two large and one smaller, which are curled outward at their margins and taper off to a thin and serrated edge. The plates are separated by fibrous tissues.

In all its essentials, the tumor bore an extraordinary analogue to the helix of a normal ear. It was hardened in absolute alcohol, and microscopic sections made completely through its vertical and transverse diameters. These, stained with carmine and mounted in Canada balsam, gave, under the microscope, the following appearances: The tumor is covered with a true skin, complete, with one exception, in all its essentials, as follows: first, a delicate, but clearly marked layer of horny epithelium, covering a thick rete Malpighii, into which there extend a large number of simple papillæ; beneath this is a corium, containing many hair follicles, which, in most instances, are provided with a delicate, non-pigmented, but otherwise perfect hair. Into the majority of the hair follicles there opens a large, sebaceous gland. Both the sebaceous glands and the hair-follicles are typical and very abundant. Beneath the integument is a thick layer of fat, in which are scattered small bundles of fibrous tissue. Then follows a tolerably dense layer of fibrous tissue, which covers a thick plate of reticular, elastic cartilage. This plate adjoins another similar plaque, and between them is a thick mesh-work of fibrous tissue, which contains many blood-vessels, and forms, in reality, the central part of the tumor.

The story of the patient as to the recent origin and rapid growth of the tumor was evidently incorrect. Although not before observed by her, it was without doubt congenital. Diligent search through all the available literature bearing upon this case failed to disclose a single reference to any such growth as the above, but, by an extraordinary coincidence, the following appeared in report of the Pathological Society of London, published in the London *Lancet* of April 9th, 1881, p. 581:

"Dr. Hale White showed a specimen of dermoid tumor of the soft palate from a child three years of age, who had had some difficulty in swallowing. The uvula was much hypertrophied and lay in front of the tumor, which apparently sprang from the upper surface of the soft palate; the growth was two inches in height, had a wide base, and was freely movable. It was excised by Mr. Morant Baker, and found to be soft in consistency, except on one surface, where a plate of cartilage existed. Microscopically, it presented all the cutaneous structures, viz., epidermis, papillæ, corium, fat-cells, but no elastic fibres. There were also many hairs lodged in follicles, into each of which a single sebaceous gland opened. The plate of cartilage was incrusted by a dense layer of fibrous tissue, and its matrix was very scanty and fibrillated; but the outer layers of the cartilage were composed of nucleated stratified cells. Dr. White referred to a similar growth from the basilar process of the occipital bone, recorded by Dr. Abraham in the *Journal of Anatomy*, vol. xv., and to one on the palate of a new-born child, described by Dr. Kidd in 1856. As to the origin of the tumor in the present case, it might have grown in connection with the Eustachian tube, but its epiblastic nature was sufficiently accounted for by its occurrence in front of the junction of the hypoblast and epiblast. It might prove to be an instance of 'reversion,' for, in the rabbit, there occur in this region four tufts of hair, two above and two below. Mr. Rushton Parker has lately seen a similar dermoid growth removed by Mr. Bickersteth from the pharynx of a child, and depending from behind the soft palate.

NOTE.—See Bulletin, pages 11 to 14.

DR. HEINEMAN presented a specimen from a man about forty years old, and illustrating

COMPLETE INGUINAL REDUCIBLE EPIPLOCELE, WITH AN UNDESCENDED TESTICLE BEHIND THE PERITONEUM AND AT THE SIDE OF THE RING.

The peculiarity was that when the omentum was in the scrotum it gave a feeling as though the testicle itself was there.

DR. HEINEMAN also exhibited, in behalf of a candidate,

A LIVER WITH THE LOBES TRANSPOSED.

DR. BEVERLEY ROBINSON presented a

FOREIGN BODY REMOVED FROM THE NOSE,

the history of which was furnished by Dr. G. J. Moser.

John Roth, cabinet-maker, aged fifty-seven, was attacked on March 5th, 1881, with severe epistaxis. He called in Dr. D. T., who, not being able to arrest the bleeding, sent for Dr. K., who made a tampon by tying a piece of sponge about the size of a walnut to a single string, and plugged the posterior nares in the usual manner, thus arresting the hemorrhage.

The patient remarked to the doctor that he had not left a string in his mouth, in order that the sponge might be removed in a few days, as had been done before by another physician. The doctor answered—"We don't always do so, because the patient might bite the string off, and it would feel very unpleasant in the throat." The case progressed favorably until March 8th, when Dr. T. endeavored to remove the plug by passing his finger into the patient's pharynx, but failed. He then pushed a flexible bougie through the inferior meatus, and reached the pharynx, but did not dislodge the sponge. On March 12th he repeated the effort, and with the same result. He then cut the string which depended from the left nostril, close to the man's nose, and told him that the sponge would rot out in time.

On March 28th, Dr. Moser was called in and found the patient with his head bent over a basin, discharging pus very freely from the nose, the offensive odor of which made it almost impossible to approach him. He passed a No. 8 flexible bougie through the inferior meatus, but failed to remove the plug. He then washed the pharynx with a posterior nares syringe, and employed a Davidson's syringe to dislodge it from before backward, but this attempt also proved futile. On April 1st, Dr. Beverley Robinson saw the patient with him and passed a large steel sound through the lower meatus without effect. He then tried to grasp the hidden treasure by the use of different curved forceps, and also with his finger, but with no better result than at first. On April 3d, Dr. Moser discovered the short string attached to the sponge depending about a quater of an inch from the patient's nose and to this he attached a longer string, which he fastened to a flexible bougie. He then introduced the bougie through the lower meatus into the pharynx, and drew it out through the mouth : the long string followed, and then with considerable traction the sponge was removed, which caused the patient entire relief from his suffering.

Dr. Robinson thought the reason why he did not succeed in removing the sponge was because it had become wedged into the middle meatus behind.

MULTILOCULAR OVARIAN TUMOR—ACCIDENTAL INJURY CAUSING AMELIORATION OF THE SYMPTOMS—DEATH FROM CONSTRICTION OF THE INTESTINES AND GENERAL PERITONITIS.

THE PRESIDENT presented a multilocular ovarian tumor removed, *post-mortem*, from a lady, a patient of Dr. A. S. Purdy, at whose instance he had made an autopsical examination. The growth was first observed in 1864, when Drs. McComb and Peaslee assumed charge of the case. Nine years later, when Dr. Purdy was called in consultation, three cysts were quite plainly recognizable. In the following year, 1874, a singular accident occurred, which had a marked influence on the after-history of the patient. While crossing a street one day, she was run over by a horse, the animal planting one foot squarely on the centre of the largest cyst; and after removal to her home it was found that the sac had been ruptured. Acute peritonitis then set in, but she recovered in a great measure her health and strength. Subsequently operative interference was urged, at various times, but consent could not be obtained. Death took place in May, 1880, or sixteen years after the first symptoms had been noticed. The final issue was brought about by general peritonitis in conjunction with constriction of the intestines: the latter resulting from the combined agencies of increasing growth in the tumor, and the contraction of fibrous deposits, due to peritonitis.

The special points of interest were, in the first place, the prolonged persistence of the disease: for according to T. Stafford Lee, the great majority of these cystic tumors terminate fatally within two years, if left to themselves; and Dr. John Clay, in giving the natural duration in 175 cases, before the introduction of ovariotomy, found only fifteen in which it had been more than ten years; and further, Dr. Thomas Lee's statistics showed that in 94 out of 123 cases the average term was less than five years, where no certain surgical treatment had been adopted.

In the second place, there had been an amelioration of the symptoms, and a decided check given to the progress of the disease by an accidental injury: at which time, singularly enough, the tumor interposed and probably saved the patient's life. Finally, the cause of death was to be attributed to two conditions:

one, the constriction of the intestinal base by which its functional activity was restricted; and the other, the alternating attacks of acute or chronic peritonitis that had occurred during the later years of her life.

DR. RIPLEY referred to a case of ovarian tumor in St. Francis' Hospital, under the care of Dr. Gillette, who was about to operate, when the sac ruptured into the intestine, and the patient died.

DR. BRIDDON remarked that rupture into the bowel was rare in ovarian tumors. He thought that the indication in cases such as reported by the President, was immediate ovariotomy: for, if the patient should struggle through the peritonitis, the evil effects of the subsequent adhesions should be taken into consideration. The operation should be performed before peritonitis set in.

DR. SELL referred to a case in which extensive adhesions existed, but ovariotomy terminated successfully.

The Society then went into executive session.

NOTE.—One of the earliest papers read before the Society was in 1845 by Dr. Isaac E. Taylor, on the spontaneous rupture of ovarian cysts and the frequency of recovery therefrom. Our former President, Dr. E. R. Peaslee, reported five cases of spontaneous rupture, of which four died within five days after the accident. The remaining one barely recovered, and the tumor was successfully removed by ovariotomy, about a year afterwards, by Dr. T. A. Emmet. Dr. Spencer Wells believes he saved the lives of several patients by operating soon after the accident; and Dr. Emmet thinks ovariotomy should not be delayed longer than necessary to insure reaction from the shock; that the abdomen should be opened before inflammation sets in; and the tumor and its extravasated contents should be promptly removed.

STATED MEETING, MAY 25TH, 1881.

DR. T. E. SATTERTHWAITE, *President, in the Chair.*
DR. WESLEY M. CAPRENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Sarcoma of the thigh..............By DR. ALFRED C. POST.
2. Glio-sarcoma, or small-celled sarcoma of the retina and choroid. By DR. C. S. BULL.
3. Pachymeningitis hemorrhagica. By DR. GEORGE L. PEABODY.
4. Vapor of Wickersheimer's fluid for preserving specimens. By DR. GEORGE L. PEABODY.
5. Supernumerary fingers and toes. By DR. GEORGE L. PEABODY.
6. Vesical, renal, and biliary calculi. By DR. EDMUND C. WENDT.

SARCOMA OF THE THIGH.

DR. ALFRED C. POST presented a specimen of sarcoma which apparently originated in the periosteum of the femur, near its lower extremity. It was from a male patient, nineteen years of age, who first became aware of the existence of the tumor a short time before Christmas of 1880. The swelling had grown rapidly, was very painful, and had given rise to emaciation and loss of sleep; but there was no enlargement of the glands in the groin. Dr. Post amputated the thigh a short distance below the lesser trochanter, two weeks ago; and although the patient was very feeble at the time, he rallied well, and the stump healed mainly by first intention. His general condition, since the amputation, had improved very markedly. In dressing the stump, Dr. Markoe's plan of thorough drainage was adopted.

As a singular coincidence, Dr. Post mentioned a similar tumor in a man, forty years of age, who first noticed its presence early in 1881. The glandular enlargement was very slight. He proposed to operate for its removal on the following day. The disease had been painful from the mechanical stretching of the parts covering it; but this pain had been relieved considerably by smearing the parts with belladonna ointment.

Dr. Post remarked that, in this class of cases, there would probably be greater security in amputating at the hip-joint, rather than below it. There are many instances in which the disease had advanced so high as to preclude any other operation than amputation at the hip-joint: and in such cases that operation should be done, although it is natural that the disorder should return more speedily than if it had made less progress. The reason why there should be more examples of return of the disease after resection than after amputation through the continuity of the bone, is because there are so many cases which do not admit of any operation other than resection.

One of his colleagues had expressed the opinion that the operation was scarcely justifiable, because the disease is so likely recur; but Dr. Post answered that, even if the duration of life should not be increased, the patient's comfort would be greatly enhanced, and therefore, as a matter of euthanasia, it would be desirable to remove the diseased mass. He believed that amputation would be justifiable even if the glands in the groin were considerably enlarged.

Dr. J. C. Peters referred to a case in which operative interference was refused, and the patient suffered extremely from pain, and died in consequence of a sarcoma, devoloping after fracture through the lower part of the femur.

Dr. Joseph W. Howe suggested division of the larger nerves of the lower extremity, merely for the purpose of relieving the pain; and he also thought that the growth of the tumor would be diminished by such a procedure.

Dr. Post remarked that the disability of the patient would not be relieved by such an operation, as the lifeless, motionless, heavy mass would remain.

The President stated that, according to his observations, periosteal sarcoma returns in the cicatrix, and he cited one case in which the disease reappeared there several times after amputation.

Dr. Briddon asserted that heterologous growths increase after division of their nerves.

Dr. Howe thought that Dr. Briddon had no authority for such an assertion. For sometimes the nerve-supply is cut off by the pressure produced by the tumor, and in just those cases the growth is usually least rapid.

The President remarked it had been proved that, after the vascular supply had been cut off, such tumors will grow just as rapidly as before; but he thought that cutting off the nervous supply would diminish the growth of the tumor.

Dr. Briddon doubted the existence of nerves within these tumors, and also doubted if cutting off the nerve-supply would in any way influence the growth of the mass. As to the propriety of removing such growths, there was no doubt that they should be removed early. He thought it would be well in such cases to make a primary amputation through the continuity of the bone; and subsequently amputate at the hip-joint when the stump had atrophied, as the latter operation would be much less dangerous than when done primarily.

Dr. C. S. Bull presented a specimen of

GLIO-SARCOMA, OR SMALL-CELL SARCOMA OF THE RETINA AND CHOROID.

The patient was about three and one-half years old, in whom the parents had noticed a yellow reflex from the fundus of the left eye for more than a year. When the child was first seen by the physician in charge, there was intense intra-ocular inflammation, a very shallow anterior chamber, the lens and iris were pushed forward toward the cornea, exophthalmus was quite marked, and a distinct orbital growth. The eyeball and contents of the orbit were at once removed, and the orbit cleaned as far as was practicable; but within a month the growth returned in the orbit and grew very rapidly. The physician very justly did not deem any further operative interference advisable, and the child lingered for several months, when it died, apparently from asthenia, with no head-symptoms till toward the end of life.

A *microscopical examination* showed that nearly all the tissues of the eye were involved, the main growth being a dense infiltration of small, round cells, with some fibrous matrix, not specially marked. It was not possible to say definitely where the disease began, but from indications in some of the sections, it was probable that the growth was at first retinal, beginning in the outer granule layer, and thence extending in all directions. This was also rendered probable by the age of the patient; choroidal tumors being very rare indeed in young children, while retinal tumors are not very infrequent.

PACHYMENINGITIS HEMORRHAGICA.

Dr. George L. Peabody presented the dura mater from a woman forty-seven years old, who died comatose after an illness of two weeks. The history was incomplete: for she was found unconscious on the doorsteps, continued so for several days, and then became conscious sufficiently to be able to answer certain questions by movements of her head, and to say yes or no. She was hemiplegic, the paralysis being entirely upon the right side of the body, and she finally died completely comatose. At the *autopsy*, he found pachymeningitis hemorrhagica, not confined to, but most marked upon the left side of the head. A very copious hemorrhage had occurred: there was fluid blood which was undergoing retrograde metamorphosis, and a deposit of pigment had begun in the tissues. The entire left hemisphere was so changed in shape as to make it nearly unrecognizable as a central mass. Fluid blood had accumulated upon the surface of the brain to the extent of *six* ounces: the hemorrhage occurred apparently in a portion of the false membrane, or else between the tissues of the dura mater; for it filled all the available space, and had evidently burst through the false membrane and made its way into the parts between the dura mater and the pia mater. The patient also had chronic diffuse nephritis.

THE VAPOR OF WICKERSHEIMER'S FLUID FOR PRESERVING SPECIMENS.

Dr. Peabody presented a specimen of *gangrene of the foot and lower part of the leg,* which had been mounted in the vapor of Wickersheimer's fluid under a bell-glass for one month, and was in a perfect state of preservation. He also exhibited two hands mounted in the same manner, from a negro, each of which had a *supernumerary finger*. The man died of phthisis at the age of thirty-two. His father and grandfather had supernumerary fingers, and also toes.

VESICAL, RENAL, AND BILIARY CALCULI.

Dr. E. C. Wendt first exhibited a vesical calculus removed at autopsy, which had a portion of a soft catheter for a nucleus. The man had suffered from vesical catarrh for a number of years, had been accustomed to use a catheter, but finally the decayed instrument broke, and a portion of it was left in the bladder. From that time on his vesical symptoms were much aggravated, and occasionally there was a bloody discharge. He died of pneumonia.

He next presented an almost perfect calcular cast of the renal pelvis. The patient had suffered from repeated attacks of renal colic.

Dr. Wendt also exhibited numerous specimens of biliary calculi from different subjects, and in every case hepatic symptoms had been absent. In this connection he made the suggestion that the gall-bladder may not be absolutely essential to the human economy, as gall-bladders distended with biliary calculi are found very frequently at autopsies, and it is impossible for bile to enter them when so filled.

Dr. Post asked if there was any special reason why the foreign body was not removed from the man's bladder.

Dr. Wendt replied, "The patient's general condition was so low that it was believed an operation would be inexpedient."

Dr. Briddon said that he had presented to the Society, some time previously, two vesical calculi in which the nuclei were portions of elastic catheters. In one case, the fragment of a soft instrument remained within the bladder only a short time, but became so incrusted that it could not be removed through the urethra, and perineal section was made.

Dr. Post remarked, concerning removal of foreign bodies and calculi from the bladder under unfavorable circumstances, that a paper had been written by a Scotch surgeon, who had shown that by operating upon unfavorable cases he had obtained a favorable degree of success; and the opinion also was given that surgeons had been too much in the habit of regarding unfavorable cases of foreign bodies and stone in the bladder as beyond the reasonable reach of surgical aid. He thought there was no condition in which the patient was likely to survive an operation in which he would not probably derive benefit from it, and therefore it was desirable that such foreign bodies should be removed.

The Society then went into executive session.

NOTE.—In Volume III. of the Transactions, pages 224 to 238, twenty cases of foreign bodies in the bladder are reported.

STATED MEETING, MAY 11TH, 1881.

DR. THOMAS E. SATTERTHWAITE, *President, in the Chair.*
DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Large round-celled sarcoma of the testicle in a unilateral cryptorchis.....................By EDMUND C. WENDT, M.D.
2. Columnæ adiposæ, with their significance in the development of carbuncle.........................By the PRESIDENT (for DR. J. COLLINS WARREN, of Boston, Mass.)

CASE OF LARGE ROUND-CELLED SARCOMA OF THE TESTICLE IN A UNILATERAL CRYPTORCHIS.

DR. E. C. WENDT presented the above specimen with the folfollowing history:—B. F., æt. 61, a watchmaker, a native of Germany, was admitted to the German Hospital February 26th, 1878. His family history was unimportant, and he remembered no serious previous illness, but had been born with cryptorchidism on the left side. About the middle of December, 1877, he noticed a distinct swelling in the left inguinal region, which then rapidly grew until it reached its present dimensions. Simultaneously, he began to suffer from local pains, especially severe at night, but their intensity was never such as to necessitate the use of narcotics. He was then living in Alabama, where he was subjected to various modes of treatment by different physicians. The tumor rapidly grew larger, and at length he determined to seek advice in New York. On admission to the hospital, he presented the appearance of a middle-sized, rather anæmic man, of feeble muscular development; and weighed one hundred and twenty-four pounds. His appetite was fair, the bowels costive, and micturition normal. An examination revealed no abnormality of the internal organs, but in the left inguinal region a large oval tumor was found, with its general direction corresponding to that of Poupart's ligament. It extended from near the left anterior superior spine of the crest of the ilium to about the lower border of the right pubic bone, and about one and a half inches to the right of the median line. The penis was pushed to the right side, and the scrotum contained the right testicle, which was apparently healthy. The tumor measured eight inches in length, three in breadth, and twenty-one in circumference; it was somewhat movable, but the integument covering it was non-adherent.

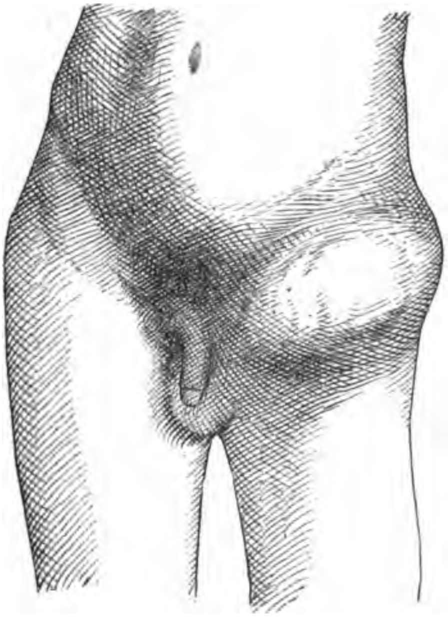

Fig. 1.

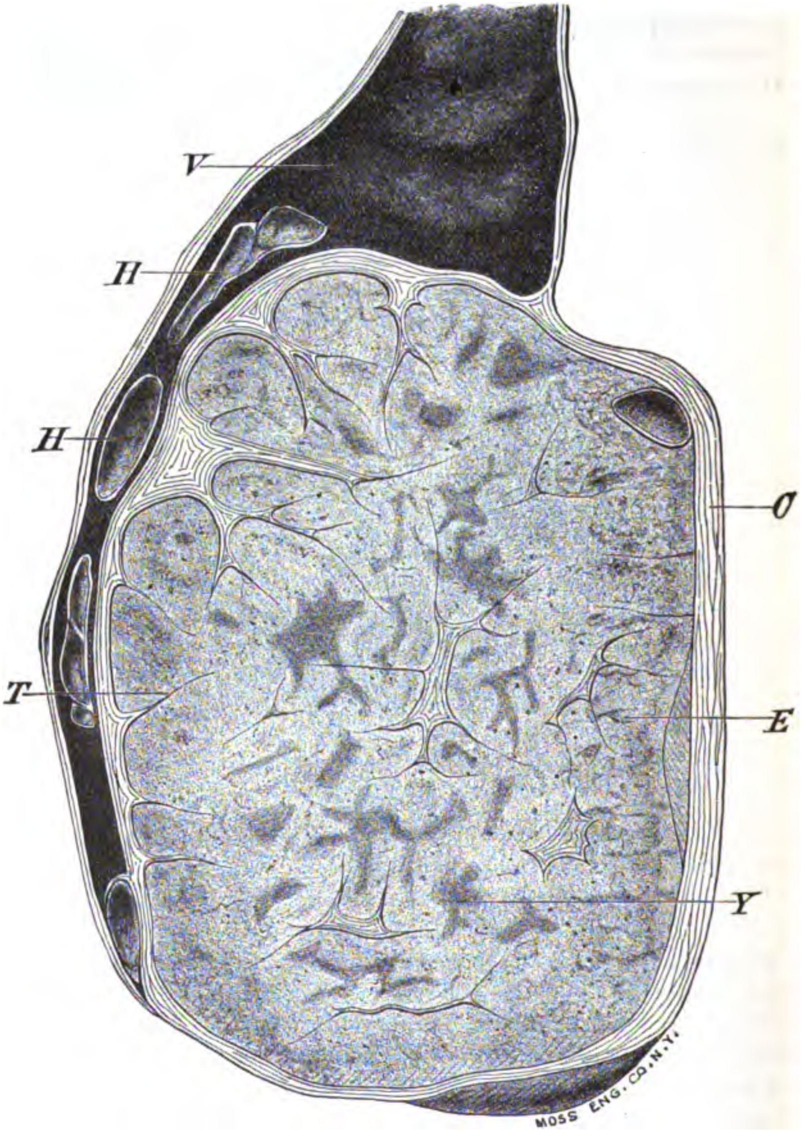

FIG. 2.—CROSS-SECTION OF TUMOR, SLIGHTLY REDUCED IN SIZE.

C, capsule; T, trabeculæ; V, tunica vaginalis, containing (H) cysts; E, portion corresponding to epididymis; Y, the central yellowish markings. The reddish punctate appearance is indicated by black dots.

Palpation revealed an upper very firm and nodular portion, and an inner somewhat softer part. Fluctuation was nowhere distinctly felt, nor was any spot of marked tenderness discoverable.

On March 6th, under strict antiseptic precautions, the operation of extirpation was performed by Dr. H. Guleke, the attending surgeon. The incision was made parallel with Poupart's ligament, and the mass was gradually dissected out. A few cystic cavities containing some clear yellowish fluid were punctured; and it was ascertained that the tumor did not extend into the peritoneal cavity. A pedicle was secured by two strong ligatures, the wound was closed with catgut, and a drainage tube was inserted into its lower end. The wound healed kindly, without a single untoward symptom, and the patient was discharged cured on the 27th of May, weighing almost one hundred and twenty pounds.

The tumor was found to weigh nine ounces. On longitudinal section its cut surface presented a mottled appearance, in which a grayish, pale-fleshy color predominated. Glistening streaks of white tissue were seen to separate the encephaloid surface into many irregularly-shaped areas. The central portions showed rounded or club-shaped masses of a distinctly yellowish hue. Here and there the surface was streaked with reddish lines, or was punctated with similar dots. The parenchyma bulged out above the cut surface, and the receding portions corresponded to the white tissue-bands already mentioned: and this convexity of the surface was supposed to indicate the cellular richness of the neoplasm; a supposition which received the confirmation of subsequent microscopical analysis. The bulging portions had a coarsely granular look, except at the central yellowish areas. The cysts, which had been conspicuous externally, were now found to involve exclusively the thickened tunica vaginalis.

The neoplasm evidently involved the epididymis, the degenerated remnants of which occupied about one lateral fifth of the entire tumor: there was, however, no well-marked boundary line separating it from that portion which corresponded to the testis proper. A thickened, fibrous capsule, the altered tunica albuginea, surrounded the entire growth; and from this capsule the branching fibrous trabeculæ proceeded inward, gradually growing thinner as the centre of the tumor was approached.

On microscopical examination, the tumor was found to belong to the large round-celled variety of sarcoma: but, although it clearly belonged to this type of neoplasm, it had a greater proportion of mature fibrous tissue than is generally contained in such growths. Of the seminiferous tubules no trace was discoverable. The bulk of the sarcoma was made up of closely-placed, large, rounded, and some polyhedral corpuscles; and a great majority of the latter were provided with spherical or ovoid nuclei, and distinct bright nucleoli. The body of these cells was, as a rule, quite coarsely granular: this applies, however, only to the examination of fresh specimens. In hardened sections the cell-bodies appeared shrunken, and the nuclei seemed proportionately large: indeed, portions of the tumor resembled only aggregations of free nuclei, imbedded in a sparing amount of a delicately fibrillated connective-tissue matrix. The broad or narrow fibrous-tissue bands, which traversed the growth in all directions, gave to some sections a distinctly alveolar appearance: but the areas, thus marked off from one another, presented extreme irregularities of size and shape, no two being found alike. As regards the vascularity of the tumor, though not excessive, it was richly developed. The component cellular elements of the growth were in direct

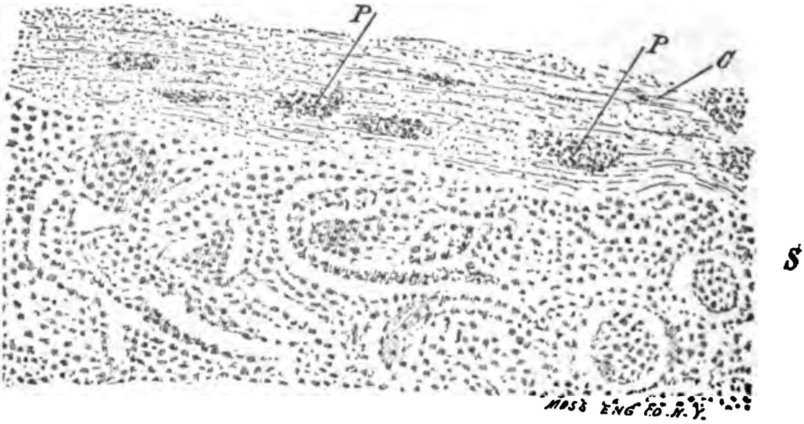

FIG. 8.—SECTION OF TUMOR, showing broad connective-tissue band at C, and the general plan of arrangement of the sarcoma cells at S. The connective tissue shows infiltration, and oval patches of heaped leucocytes at P. (Hartnack, Oc. 2, Obj. 4.)

juxtaposition with the thin walls of the blood-vessels, and in no instance could a separating adventitia be made out. There were portions of the tumor which showed capillary extravasations; but it may be mentioned incidentally that the red blood-corpuscles had retained their integrity of structure in all such hemorrhagic foci. This circumstance was not alone answerable for the mottled naked-eye appearance of the sarcoma; for these hemorrhagic col-

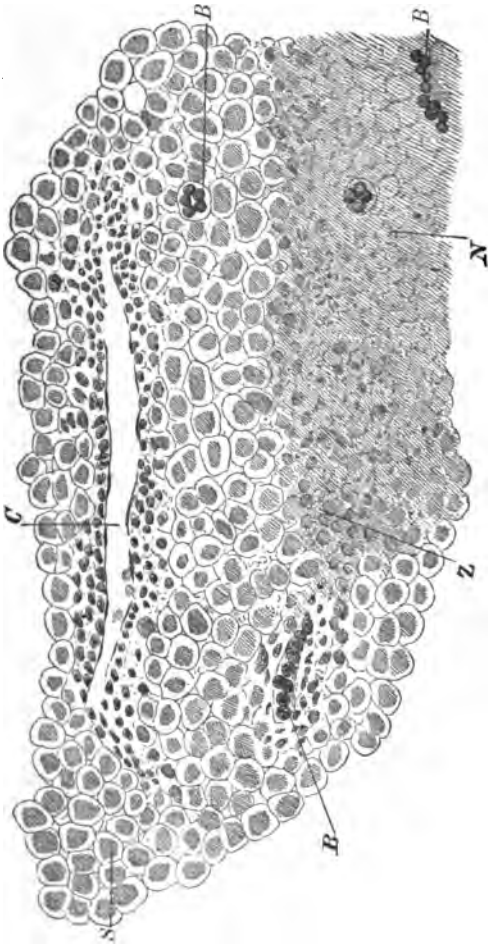

FIG. 4.—THIN SECTION VIEWED WITH A HIGHER POWER.

C, Lymphatic tissue-cleft, showing three leucocytes; B, Blood-vessels; S, Ordinary rounded sarcoma cells with their large nuclei; Z, The zone of infiltration around N, a portion of the tumor exhibiting coagulation necrosis. (Hartnack, Oc. 3, Obj. 7.)

lections only accounted for the red streaks and dots visible microscopically.

The yellowish color, previously mentioned in connection with the gross appearance of the tumor, was due to fatty changes in some of the constituent cells of the tumor. An interesting point was noticed in this connection: the presence of fatty degeneration was detected readily enough, but the portions thus altered assumed only a very faint rosy tint, or remained colorless, when the sections were submitted to a process of double staining with hæmatoxylin and eosine: moreover, in osmic acid a characteristic black look of the fatty granules was produced. But there were other portions, the gross appearance of which did not materially differ from that of the fatty districts, but which, nevertheless, were microscopically quite distinct from the latter. Such areas were generally seen to occupy about the middle of some larger collection of round cells: irregular in shape, and never separated from the sarcoma cells by connective tissue, these portions of the tumor were composed of a more or less homogeneous or faintly granular mass. As before stated, they appeared fatty at first sight, but failed to give the reaction of fat. Besides, such masses appeared to be, in a measure, marked off from neighboring structures by a narrow surrounding zone of spherical corpuscles, having the size and general appearance of leucocytes: but close inspection elicited the fact that these portions were entirely composed of altered sarcoma cells. This alteration had resulted in rendering their nuclei either quite indistinct or altogether invisible. Here and there a blood-vessel was still seen to course between these degenerated cells, but this was an exception rather than the rule, and it was quite apparent that a far less abundant vascularity distinguished these altered districts. Whether this diminished blood-vascular supply was a primary cause, or a secondary effect of the morbid structural changes, is a difficult matter to decide. Arguing on general principles, the former may be received as affording a more satisfactory explanation. At any rate, it would appear that the very rapidity of growth in this neoplasm had led to a necrobiotic metamorphosis of some of its cellular constituents. The change which the cell areas, just described, underwent very probably corresponds to a somewhat advanced stage of coagulation-necrosis, as described by Cohnheim and others. The next step in this retrograde metamorphosis would probably have been true fatty degeneration, such as was found to have already taken place in some portions of the tumor. Coagulation-necrosis, viewed in this light, must therefore be considered as a phase of declining cell life, analogous to the condition of cloudy swelling: and both states are to be regarded as the precursors of fatty disintegration. The writer is led to expound this matter at some length, because he has never before encountered precisely this stage of transformation in the cellular elements of a sarcoma.

One other point may receive mention here: between the aggregations of large, round sarcoma-corpuscles there appeared, at certain intervals, crevices, clefts, and openings; and a distinct endothelial lining could in many cases be seen along these interstices. As an exceptional occurrence, leucocytes were also seen within such channels, but red blood-corpuscles were never encountered there. It is safe to assume, therefore, that these spaces represented lymph-channels. On the other hand, it does not appear what important *rôle*—if, indeed, any—they played in the growth and development of this particular tumor. Still their presence here is a fact that I think should not be overlooked.

COLUMNÆ ADIPOSÆ; WITH THEIR SIGNIFICANCE IN THE DEVELOPMENT OF CARBUNCLE.

THE PRESIDENT presented, by permission of Dr. J. Collins Warren, of Boston, some microscopic slides and wood-cuts showing the *columnæ adiposæ* recently discovered by Dr. Warren. They were regarded as interesting and valuable contributions to the histology of the skin, and also because they serve to explain the pathology of carbuncle, especially that variety seen in the tissues of the back.

The specimens were taken from a fleshy woman and the columns were readily seen by the naked eye, standing out distinctly as bright shining clefts, and easily contradistinguished from the surrounding tissues, which were deeply stained with hæmatoxylon.

Under the microscope, it was seen that the columns or canals extended from the underlying panniculus adiposus to the bases of the hair follicles: and in them were also seen portions of blood-vessels, sweat glands, and possibly lymphatics.

The columns were supposed to have a constant numerical relation with the hair follicles as they were not found when the latter were absent. For this and other reasons, they were surmised to have some affinity with the nutrition of the hair as well, and to afford room for vessels and sweat glands.

Lateral arms were also given off, which afforded spaces for the minute vascular divisions, and had, in addition, an important pathological significance. Thus, in carbuncle, the inflammatory exudation collects at first beneath the thick and dense fibrous tissue of the cutis vera, which attains a remarkable thickness in the back: finding an avenue of escape through these columns, the massed corpuscles press upwards towards the surface, and do not meet with any resistance until they reach the base of a hair follicle; at which point the tissues begin to soften, until finally nothing is left but the hair-shaft, which becomes the centre of a pustule. When the contents of the channel have been discharged, a "hole" is left which corresponds with the dilated fat-canal, and the space formerly occupied by the follicle, hair shaft, and glandular and muscular apparatus. The development of the smaller pustules which intervene between the "holes" is explained somewhat differently: the cell elements, retarded in their ascent through the columns pass on through the lateral arms, and finally fill all the lymphatic spaces, so that the tissue becomes hard and brawny. Then the cellular elements crowd up along the vessels going to the papilla, and fill it, "ballooning" it out. In many cases, the epidermis yields before the enormously dilated papilla, and the pustule is discharged. In other cases, the epidermis remains intact, and a retrograde process is set up: in such instances, the central part of the papilla will be found filled with leucocytes and granular debris, indicating a dissolution of the products of inflammation.

The Society then adjourned.

STATED MEETING, JUNE 8TH, 1881.

DR. THOS. E. SATTERTHWAITE, *President, in the Chair.*

DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Report of the Microscopical Committee.
2. Aneurism of both vertebral arteries. By DR. W. M. CARPENTER.
3. Suppurative pericystitis........By DR. W. M. CARPENTER.
4. Sarcoma of the thigh.............By DR. ALFRED C. POST.
5. Nasal polypus.................By DR. BRYSON DELAVAN.
6. Supposed concentric hypertrophy of the left ventricle, with disease of the aortic and mitral valves. By DR. J. N. RIPLEY.
7. Multiple uterine fibroids.............By DR. E. C. WENDT.
8. Double ovarian cysts ....By DR. B. A. WATSON.

REPORT OF THE COMMITTEE ON MICROSCOPY

was read by DR. WILLIAM HENRY PORTER, Chairman.

I. The tumor removed from the nates, presented by Dr. Lewis H. Sayre, March 9th, 1881, was found to be composed principally of dense fibrillated connective tissue, arranged in a very irregular manner, as commonly seen in fibrous tumors. At points there was some evidence of inflammatory action, in the shape of zones of round corpuscles. No cartilage-cells were found in any of the sections. The growth may, therefore, be regarded as a fibroma.

II. The tumor connected with the superior maxillary bone, presented by Dr. C. K. Briddon, March 13th, 1881, was found to be epithelial in character. From the concentric arrangement of the epithelial elements into the so-called nests, it was regarded as epithelial carcinoma.

Signed, WILLIAM HENRY PORTER, M.D.,
GEORGE L. PEABODY, M.D.,
ANDREW R. ROBINSON, M.D.

ANEURISM OF BOTH VERTEBRAL ARTERIES.

Dr. W. M. Carpenter presented a specimen with the following history, by Dr. Anderton, House Physician at Bellevue Hospital:

J. D——, aged thirty, Scotch, was admitted October 5th, 1880. He had the initial lesion of syphilis seven years before, followed by secondary manifestations. In February, 1879, he had facial paralysis on the right side, from which he entirely recovered. Late in September, or early in October, 1880, he noticed that he saw double, and soon afterward it was observed, that his right eye was not only turned inward, but he was unable to rotate it outward.

On admission, there was internal strabismus affecting the right eye and the optic papilla was prominent; deafness in the right ear; and loss of voice, with paralysis of the right vocal cord.

On October 17th, the facial paralysis on the right side returned, and he was unable to close the right eye. Iodide of potassium was administered in gradually increasing doses, until seventy-five grains three times a day were given, and with marked benefit: but on April 17th, 1881, he had an epileptiform convulsion. Hence the iodide of potassium was discontinued, and the bromide of potassium substituted.

Up to April 24th he had not had another convulsion, and was again able to do his work about the doctor's room. On April 29th he complained of headache, and felt dull. On May 9th he was obliged, on account of headache and general feeling of discomfort referable to his head, to discontinue his care of the room. On May 15th he still complained of headache, and on May 17th it was noticed that he was getting more and more stupid, and could be aroused only with difficulty. From that date he remained drowsy, became delirious, and died May 23d, 1881.

At the *autopsy* there was found general dryness and congestion of the brain, with notable thickening of the pia mater around the sixth and the seventh nerves on the right side. There were aneurisms of both vertebral arteries (about three-eighths of an inch in diameter) as they joined to become the basilar. There was a gummy growth surrounding the right vertebral artery, with thrombosis of the vessel below the aneurism; and a gummy tumor, an inch in diameter, in the anterior lobe, pressing upon the middle cerebral artery on the right side. There was extensive softening in the temporal lobe on the left side. Microscopically (Dr. W. H. Welch), gummata attached to the arteries were found in abundance throughout the brain. The liver contained a few gummy growths. The other organs were apparently normal. There was atrophy of the crico-arytenoideus muscle on the right side.

DR. RIPLEY referred to a peculiar grouping of symptoms in syphilitic persons; for instance, in an illustrative case there was paralysis of the right arm and the left leg, and in the case just reported there was paralysis of one muscle of the larynx and one ocular muscle. He thought that syphilitic paralysis in children could often be diagnosticated by this peculiar grouping of symptoms.

SUPPURATIVE PERICYSTITIS.

DR. CARPENTER also presented a specimen from a professional beggar, aged sixty-six, who died in Bellevue Hospital. No history could be obtained. At the *autopsy* there were found congenital phimosis, with balanitis, a narrowed meatus urinarius (No. 8, American scale), a dilated fossa navicularis, a slight bar at the neck of the bladder, the bladder with hypertrophied walls and diminished calibre, dilated ureters, dilated pelves, surgical kidneys, and pericystitis. When the specimen was removed, and the inner surface of the bladder made tense, pus welled up from a multitude of small openings which communicated with suppurating cellular tissue in front and upon the sides of the bladder, and extended up the sheath of the right rectus muscle. The question arose, whether the pericystitis was primary, or secondary to the cystitis. Dr. Carpenter believed it was secondary to, but, perhaps, merely coincident with the cystitis; and that the condition of the bladder depended primarily upon the state of the genito-urinary canal in front of it. One of his colleagues had, however, expressed the opinion that the pericystitis was primary and the cystitis secondary.

Dr. Ripley thought that extensive pericystitis was not likely to occur without some special cause, and that probably it was secondary in this case.

The President said that pericystitis was found almost exclusively in connection with some operation about the bladder, or some disease which had called for an operation. Whenever a permanent stricture existed, dilatation and hypertrophy of the bladder were quite sure to follow, and subsequently dilatation of the ureters occurred, succeeded by dilatation and inflammation of the pelves of the kidneys, all terminating, perhaps, in destruction of the entire kidney. In this specimen, if there had been an escape of pus from without into the bladder, it was hardly natural to suppose that consecutive dilatations of the ureters, with pyelitis or pyo-nephrosis, would also have been found. One could often explain dilatation of the bladder on the ground that there was a narrowed meatus, producing spasmodic contraction at the neck of the bladder; and in the specimen presented, there was undoubtedly an actual bar at the neck of the bladder, but composed mostly of mucous membrane. In a large number of cases, where a tight stricture existed in the deep portion of the urethra, with dilatation behind, and abscess formed there, the cutting should not be limited to simply opening into the dilated part behind the stricture, but the operation for stone should be done—the knife should enter the bladder behind the prostate—thus relieving all the surrounding tissues of the pus by which they might have become infiltrated.

Dr. Post referred to a case in which he assisted the late Dr. Gurdon Buck in an operation for removal of a vesical calculus: the patient died of pericystitis.

SARCOMA OF THE THIGH.

Dr. A. C. Post presented a thigh from a Scotchman aged forty years, who had enjoyed good health until a short time before the appearance of a tumor. Two weeks before he noticed the swelling, he received a fall while engaged in the amusement of curling upon the ice, but did not injure his thigh; so that there was no apparent connection between the fall and the development of the tumor. He first noticed a small swelling in the lower part of the thigh in the early part of January, 1881, and it increased rapidly in size until the operation. The tumor was soft, and the sensation of fluctuation was so marked that, after the patient was upon the table and the tourniquet had been applied, some of his colleagues suggested it might be a cyst containing fluid, and that it would be proper to make an explorative incision, which was accordingly done, and a considerable quantity of coagulated blood and other material were found beneath the integument and fascia. Some of this was examined under the microscope by Dr. L. A. Stimson, who expressed the positive opinion that part of it was organized tissue. Dr. Post then proceeded with the amputation; and it was found that the growth was not primarily connected with the periosteum, but had developed first in the muscular tissue of the thigh. It had, however, become somewhat adherent to the periosteum, and there were portions of the bone which seemed to be bare. The tumor was about twelve centimetres long, and its circumference was somewhat greater than its length. There was no glandular enlargement in the groin. The stump was treated by Dr. Markoe's plan of thorough drainage. There had been, apparently, union by first intention throughout, but afterward the edges of the wound separated, and there had also been slight sloughing in two places. The patient's temperature had not been above 102° or 103° F., and this morning was about normal, and he was doing well.

With reference to the case reported at the last meeting, Dr. Post remarked that proliferation had taken place at the extremity of the bone where it was amputated; and there was reason to apprehend that the disease had returned. That fact, if alone, would have led him to propose exsection of the head of the bone, but he found that another small tumor had developed, upon one of the ribs which made the case still more alarming. The patient's general condition, however, had improved since the amputation.

THE PRESIDENT remarked that there seemed to be some organized tissue in the specimen presented by Dr. Post, in which a clot had formed; but the microscopical examination had not yet been completed. It was questionable whether it was fibrous thickening with hemorrhage, or sarcoma with hemorrhage into it. He did not regard it as malignant in the sense of being carcinomatous.

Dr. Ripley remarked that fibroma would not occasion secondary deposits.

NASAL POLYPUS (?).

Dr. D. Bryson Delavan presented a microscopic section of a tumor from the nose of a boy aged fourteen years, who, so far as he was able to discover, was in good health. The mass was about the size of a raspberry, had a dark color, and uneven surface, and was attached to the right side of the nasal septum, about three-fourths of an inch from the nasal orifice, by a well-defined pedicle. The boy first noticed it three months ago, but doubtless it had had a longer duration. It grew rather rapidly, and respiration through the right nostril had become more and more impeded. It was attended with some soreness, and with frequent but small hemorrhages. Dr. Delavan placed a wire-snare around the pedicle, expecting to remove the tumor rapidly; but the tissue proved to be so dense that it could not be completely divided with the wire, and the operation was completed with scissors. The growth was not an ordinary nasal polypus, but belonged to a rather rare variety, of which Dr. Delavan had seen only one case previously; but that was highly vascular, and gave rise to profuse hemorrhages.

The specimen was covered with epithelium, such as found upon the skin; and had a distinct stroma of connective tissue, holding a great number of lymphoid cells, and also a large number of blood-vessels with very thin walls, apparently sinuses. [A more complete description will be given hereafter.]

Dr. J. H. Ripley presented a specimen illustrating

SUPPOSED CONCENTRIC HYPERTROPHY OF THE LEFT VENTRICLE, WITH DISEASE OF THE AORTIC AND MITRAL VALVES.

It was accompanied by the following history: A. P——, twenty-four years of age, born in Hungary, single, and by trade a blacksmith, was admitted into St. Francis Hospital, May 6th, 1881. There was no hereditary disease in his family, and the patient always enjoyed good health until two years ago, when he began to suffer from chronic rheumatism, affecting chiefly the elbows and feet, but never sufficiently severe to prevent him from working. He had not had syphilis. Early in April last he complained of shortness of breath after slight exertion, and of pain in the precordial region; and on the 20th, he was suddenly seized with a "tearing pain" in the cardiac region, which was immediately followed by a dry cough, palpitation, and great dyspnœa. These symptoms, although modified, continued up to the time of his admission, when, in addition, he had œdema of the lower extremities, and was subject to frequent attacks of vertigo.

An examination of his chest soon after he entered the hospital gave the following physical signs:

Heart.—The area of cardiac impulse was increased. The apex-beat, of unusual force and of a heaving character, was seen and felt directly under, and one and a half inches below the left nipple. A strong, superficial thrill was felt during systole in the second intercostal space near the sternum on the right side. The area of cardiac dulness was increased both to the right and to the left. A loud, whizzing systolic murmur, with its maximum intensity at the right of the sternum in the second intercostal space, was heard all over the chest and with great distinctness behind, on both sides, but particularly loud in the right intrascapular region. A second systolic murmur, of a blowing quality, was heard with greatest intensity at the apex, but could be traced around to the left, and was distinctly audible near the lower border of the left scapula. A feeble diastolic murmur was also recognized at the xiphoid cartilage.

Lungs.—There was flatness at the base of each lung, as well as entire loss of the respiratory murmur. A slight friction sound was heard in the left axillary region.

Diagnosis.—Cardiac hypertrophy with aortic insufficiency and stenosis; mitral insufficiency; and double hydrothorax. It was also thought that there was some acute endocarditis.

The condition of the patient grew rapidly worse; great œdema of the lower extremities supervened; and orthopnœa and dyspnœa hastened the final exhaustion, so that he died May 25th, nineteen days after entering the hospital.

Autopsy by Dr. E. C. Wendt. The pericardial sac extended from the junction of the costal cartilage with the sixth rib on the left side, to the mammary line on the right side; and about eight ounces of serum, holding whitish flakes, were found in it. The pleural cavities contained about twelve ounces of a clear fluid; the abdominal cavity also held a small amount. The right ventricle was much dilated. The left ventricle was markedly hypertrophied—the hypertrophy being apparently of the concentric variety. The mitral valve was thickened, and the distance from the attached to the free border measured one-fourth of an inch. The aortic orifice showed considerable stenosis and malformation, due probably to cicatricial contraction of the semilunar valves. A broad band of fibrous tissue extended across the aortic orifice below the attached border of the semilunar valves. The pulmonary semilunar valves and the tricuspid valves were normal. The heart weighed twenty-eight ounces: its left ventricular wall was fifteen lines in thickness (the weight and measurement were taken nearly two weeks after the autopsy was made). The liver was large and hyperæmic. The kidneys were normal. The spleen was enlarged and softened. The lungs were generally œdematous.

Dr. Ripley remarked that the special point of interest in the specimen was the concentric hypertrophy. A great many observers had denied the existence of such a condition, but there were some who acknowledged that concentric cardiac hypertrophy could occur; still he was not aware that a case of the kind had ever been recorded. At the autopsy, the left ventricle was filled with water, and found to hold about one ounce. Two days ago he closed the incision which had been made through its wall, filled the cavity of the left ventricle with melted wax, allowed this to cool, then removed the mass, and remelted it, and found that it measured eight and one-half drachms. That the wall of the left ventricle was exceptionally thick, and the cavity unusually small, was very apparent.

Another interesting point was the existence of a bar across the bases of the aortic valves, which probably gave rise to the peculiar thrill noticed during life. The cardiac muscle had been examined microscopically, and found to be normal.

Dr. Ripley thought the obstruction to the outflow of blood must have existed for a long time, while the regurgitation at the aortic, and also the mitral orifice, had had only a short duration. This would account for the large amount of concentric hypertrophy without dilatation.

Dr. W. M. Carpenter asked whether the heart was found in systole or diastole at the autopsy.

Dr. Wendt answered that it was found in systole.

The President remarked that it had often been stated that cardiac hypertrophy without dilatation did not occur.

Dr. Ripley replied there were many who believed that it existed; for instance, Rokitansky, Skoda, and others: it seemed to him that there was quite as much danger in going to the other extreme and regarding the diminution in size of the ventricle as always due to contraction, as there was of making the mistake in regarding it as caused by concentric cardiac hypertrophy. It was not often that so small a cavity as existed in the left ventricle of the heart presented was seen: and at autopsies it was exceedingly rare to find the heart in systole. Why was this so?

Dr. Peabody said that one reason why the heart was not found more frequently in systole at autopsies was because the relaxation incident to post-mortem changes had taken place before any examination was made.

Dr. Wendt stated that several hours elapsed between death and the autopsy in Dr. Ripley's case.

Dr. Peabody thought that the condition of the heart could be explained naturally upon the supposition that death occurred during cardiac systole; and it did not seem to him that the cavity of the left ventricle was at all smaller than was frequently found at many autopsies. That there was marked hypertrophy was evident: but he took issue with the statement that it was an illustration of concentric hypertrophy: he thought it was a case of simple hypertrophy.

Dr. Ripley remarked that, according to the measurements made by Dr. Wendt and himself, the cavity of the left ventricle did not contain one-half as much as it should.

Dr. Peabody asked Dr. Ripley if he meant to say that the cavity should hold more than one ounce of fluid.

Dr. Ripley thought it should.

The President remarked that he had seen, within two weeks, a contracted heart, the left ventricle of which would not have contained more than a tablespoonful of liquid. He did not wish to state that such a condition as concentric cardiac hypertrophy without dilatation did not occur; but simply that it had been claimed by those who had had large opportunities for observation that hypertrophy did not happen without dilatation. He suggested that the question could be solved by immediately freezing a heart removed in positive systole and then making sections.

Dr. Peabody thought that the walls of an empty heart, as situated in the body, were absolutely in contact; and that after it had been opened and again sewed up the cavities might contain from half an ounce to two ounces.

Dr. Post asked if it was not fair to infer that the quantity of fluid poured into the ventricle would nearly correspond to the quantity of blood which it had contained.

Dr. Wendt said, Not when the heart is in systole.

Dr. Ripley remarked in conclusion that he was not speaking of the ventricular cavity when the heart laid upon its side; or as it was after it had been distended with water. No force had been used in filling the ventricle: and if dilatation had existed its cavity should have contained several ounces; but, instead, the quantity was less than that contained by a normal heart.

UTERINE FIBROIDS.

Dr. E. C. Wendt presented the uterus from a woman, aged twenty-six, who was admitted to St. Francis' Hospital, with the history of acute pleuritis with effusion; she was also menstruating, and had been married only two weeks. She died on the following day.

At the *autopsy*, made twenty-four hours after death, the lesions of acute purulent pleuritis were found. The mucous membrane of the uterus presented the usual thickening seen during menstruation; it was also reddish and succulent. In addition, there was a polypus attached to the fundus by a distinct pedicle, and extending downward nearly to the internal os. There were, also, several subperitoneal and intramural fibroids, some of which were, apparently, undergoing calcareous degeneration. The largest of the fibroids was about the size of a hazelnut. The line of demarcation between the cervix and the body was very distinct. There was a corpus luteum on the right side, in what appeared to be an excrescence projecting from the substance of the ovary; and another corpus luteum in the left ovary of about the same size and appearance.

Dr. Post doubted the existence of intramural tumors in the specimen.

DOUBLE OVARIAN CYST.

Dr. B. A. Watson presented the uterus and its addenda from the body of Mina Müller who was murdered in Guttenberg, N. J. It had been supposed that she was pregnant, but examination revealed no change in the uterus. There were two ovarian cysts, one upon each side, which were exhibited.

Dr. Chas. K. Briddon presented

THE LOWER END OF THE RECTUM AND THE ENTIRE PROSTATE GLAND REMOVED BY OPERATION FOR SCIRRHOUS CARCINOMA.

The patient was sixty years old, and entered the Presbyterian Hospital Feb. 28th, 1881. He died on the second day after the operation.

[For a complete history of the case and the operation, see the *Medical Record*.—W. M. C]

The Society then went into executive session.

Note.—See page 181, also Vol. I. of the Transactions, pages 185 to 187. Aneurisms of the cerebral arteries, though not common, are more frequent than was supposed at one time; in fact, they are not rare when compared with their scarcity in vessels of the same size; as might be expected from the thinness of the intra-cranial arteries. They are generally seated at or near the circle of Willis, and are most common between the ages of 30 and 50; although twelve cases are known in persons under 20, and one as early as 18 years In forty cases, fifteen terminated by rupture; five only caused pressure; five were attended with convulsions; and fifteen by congestion, hemorrhage, or inflammation of the brain.

STATED MEETING, JUNE. 22D, 1881.

DR. THOS. E. SATTERTHWAITE, *President, in the Chair.*
DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Tubal pregnancy.........By DR. S. J. WALSH, Candidate.
2. Medullary cancer in the left kidney of a child. By DR. JOHN SHRADY, Candidate.
3. Neuroma, with exsection of the brachial nerve and implantation of the nerve of a dog..........By DR. F. LANGE.
4. Subclavian aneurism, treated by needling and galvano-puncture........................By DR. T. R. CHAMBERS.
5. Syphilitic meningitis, with diffuse changes in the spinal cord, followed by cystitis and pyelitis. By DR. WM. H. PORTER.
6. Typhoid ulcerative endocarditis. By DR. GEORGE L. PEABODY.
7. Aneurism of the heart.......By DR. GEORGE L. PEABODY.
8. Primary cancer of the liver...By DR. GEORGE L. PEABODY.
9. Congenital dislocation (?) of the left testicle in a child. By DR. VIRGIL P. GIBNEY.
10. Cystic sarcoma (?) of the breast........By DR. A. JACOBI.
11. Tubercular pericarditis (3 cases)........By DR. HEINEMAN.
12. Presentation of a silver pitcher and salver to DR. GEO. F. SHRADY, with remarks by DR. A. JACOBI, and response by DR. SHRADY.

DR. A. B. JUDSON presented, on behalf of a candidate, a specimen of

TUBAL PREGNANCY.

By DR. S. J. WALSH, *Candidate.*—Elizabeth M——, U. S. twenty-seven years of age, married, gave a history of three deliveries, and one miscarriage. In July, 1880, when three months pregnant, she was threatened with abortion, which was averted so that she went to full term, and on December 4th, 1880, was delivered of a small and weak female infant.

She suffered from uterine inertia, which necessitated the use of forceps to complete delivery. A large quantity of blood was lost *post partum*, but the placenta was delivered entire, and appeared normal.

Following this confinement, she was attacked with septicæmia; and as a local means of treatment, intrauterine injections of a dilute solution of carbolic acid were used. A scantiness of milk necessitated artificial feeding of the infant, which died, in the fifth week, from catarrhal pneumonia.

From this time onward she remained in a fair condition of health, excepting an uneasy feeling in the pelvis and slight leucorrhœa, and her menstruation recurred regularly.

On Sunday, June 5th, I was hastily summoned to her, the messenger stating that she had a "pain in her stomach." I found her in a grave state of collapse, with a peculiarly bleached, or waxy appearance, and she complained of excessive pain in the abdomen, which, according to her statement, originated in the left iliac region, but had now become general.

The abdomen was flat; no tumor could be discovered owing to the pain occasioned by the examination. There was no radial pulse, but the carotids pulsated feebly, at the rate of one hundred and forty per minute. The temperature was subnormal, and the patient greatly prostrated.

I obtained from her the following history: Her menses had been regular since her last confinement, and just now she had been menstruating for two days. But for two weeks she had been subject to intermittent pains in the abdomen, the exact situation of which she could not point out: the paroxysms lasted from ten minutes to half an hour, and were becoming more intense until on the day in question (Sunday, June 5th), while attempting to walk across the room, she was suddenly seized with a pain which exceeded all others in severity. The agony was such that she fell, helpless, to the floor until assistance was rendered, when she walked up one flight of stairs to her room.

The treatment was that for surgical shock, viz.: Hypodermic injections of equal parts of brandy and ether, with small doses of Magendie's solution.

Dr. L. D. Sprout advised the continuance of the above treatment; three hours later she was much weaker, but the pain had disappeared. The abdomen was now slightly distended, and the carotid pulse could not be counted, owing to its great rapidity. She continued to sink, until seven o'clock in the evening, when she died.

Autopsy.—June 7th, thirty-six hours *post-mortem; rigor mortis* not well marked; the abdomen was distended, and slightly tympanitic; the peritonæal cavity was completely filled with fluid blood, upon which the colon and small intestines were floating; the pelvis was occupied by a large, firm clot, which covered the fundus of the uterus and bladder.

The right ovary contained cysts of different sizes; but the right tube and broad ligament were normal.

The left Fallopian tube, about midway between the fimbriated extremity and junction with the uterus, contained an oval, firm mass, about the size of a pigeon's egg, the anterior surface of which presented a ragged, irregular opening, about half an inch in length. This opening was enlarged, and the interior of the sac was found occupied by a fleshy mass which was supposed to be the fibrinous portion of a clot.

The uterus was normal in appearance, except the internal surface was covered with thick, bloody mucus; no decidua was found.

Through the kindness of Dr. Satterthwaite, the specimen was examined microscopically, and found to contain chorionic villi.

As the autopsy was, through necessity, performed hurriedly, the ovum escaped notice, having been, in all probability, removed with the clots of blood from the pelvic cavity.

The specimen shows the mass in the left Fallopian tube, together with the rupture, which has been enlarged for the purpose of examination.

The diagnosis was suspected during life, and proven *post mortem.*

NOTE.—In Vol. III. of the Transactions, pages 256 to 269, eleven cases of tubal pregnancy are reported. This case was in the *left* tube, whereas the right is most frequently involved. Other authors have found no decidua in the uterus. The rupture generally occurs in the second or third month of pregnancy; and there is apt to be more or less constant uterine hemorrhage previously, whereas, in this case, menstruation was normal.

MEDULLARY CANCER OF THE LEFT KIDNEY IN A CHILD.

By Dr. John Shrady, *Candidate.*—The patient from whom the tumor was removed was a female child in her third year, of healthy parentage, without a history of cancer in either line, and in whom nothing abnormal was noticed up to February of the present year (1881), at which time the mother discovered, along with certain mild febrile manifestations, a growing mass in the left hypochondriac region. The parents associated this, with some misgivings, to a fall upon the carpet during the previous month; but the accident was due merely to a misstep, and being succeeded by no immediate consequences, was not regarded by Dr. D. C. Cocks, the attending physician, as bearing the relation of cause and effect.

The tumor grew so rapidly that, when the presenter was called in, the body of the child measured twenty-one inches around the umbilicus; and besides an encroachment upon the right side, there was a marked line of dulness up to about the region of the eighth rib. Before death, this measurement was increased to twenty-seven inches. The hypodermic syringe drew blood only, in which were detected, according to the report of Dr. Wm. H. Draper, neither casts nor cells. The urine contained no albumen or blood. The average temperature throughout the entire illness was only 100½°. At a subsequent stage, Drs. Watts C. Livingston and John S. Aitkin were associated in council with the family physician and the presenter, when also the fluid obtained with difficulty by aspiration yielded precisely the same results. Narcosis in each instance was readily produced by chloroform.

The diagnosis of the malignant nature of the growth was based upon the rapidity and direction of the development, its immobility and absence of synchronism with the movements of the diaphragm, the position of the descending colon in front, as demonstrated by an oblique ridge, apparent even to the eye, and most of all by the phantom character of this ridge; the enlarged, tortuous superficial abdominal veins, as indicative of its vascularity, and as a general symptom of the impending fate of the patient, the anxious, beseeching countenance conjoined with the usual pallid cachectic appearance.

At the *autopsy*, the diaphragm was found pushed up to the fourth rib on the left, and to the third rib on the right side. The apex of the heart was between the second and the third ribs, and its base at the sterno-clavicular junction. The tumor, which was renal, was found to be adherent to the spleen, and had carried this organ high up into the diaphragmatic vault. The greater portions of the abdominal walls were agglutinated by friable adhesions. The right kidney, with the exception of a slight, perhaps scarcely appreciable hypertrophy, presented no abnormal appearance. The weight of this cancerous mass was?*

The microscopical appearances were: abundance of cells with free nuclei, and very little intervening tissue. The presence of normal kidney structure determined the organ involved. The mass, in gross, was soft almost to pulpiness, even *diffluent in character*.

NOTE.—In Vol. III. of the Transactions, pages 171 to 178, ten cases of cancer of the kidneys are reported.

DR. H. N. HEINEMAN presented, on behalf of a candidate, a specimen of

ANEURISM OF THE ARCH OF THE AORTA.

NEUROMA—REMOVAL—IMPLANTATION OF THE NERVE OF A DOG.

DR. F. LANGE presented a patient who had had a neuroma of the brachial nerve just where it left the axilla. When the tumor was removed, the continuity of the nerve was destroyed to the extent of four inches. In accordance with the method suggested and practised by Gluck, of Berlin, he implanted, seventeen days ago, four and one-half inches of the sciatic nerve of a dog. The wound healed by first intention, but whether the case would be a success so far as restoration of nerve-function was concerned, he was unable as yet to say. Dr. Lange directed especial attention to the fact that the sciatic nerve of the dog, although the animal used was a large one, did not correspond in size with the excised nerve—it was considerably smaller. He thought that it was important to ascertain the relation, with reference to size, between the nerves of man and animals, in order that it might be determined from what species of animals nerves of the proper size might be derived for this purpose. The tumor had the appearance of a fibro-sarcoma, but the examination had not been completed.

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* Dr. D. C. Cocks has exact record of weight.

DR. RIPLEY asked if the splice was made for the purpose of restoring nerve-function.

DR. LANGE answered that it was, and Gluck had been so successful that within a short time the function of conductibility had been restored, which he regarded as exceptional after dividing nerves, and especially after the removal of long pieces of them.

DR. RIPLEY remarked that the ulnar nerve had been divided, a considerable portion removed, and the conductibility had been restored. The operation was done by Dr. Howe. Had the question been settled as to how much of a nerve may be lost and its function be restored?

DR. LANGE said that an inch of the trigeminus had been removed, and the function of the nerve was subsequently restored.

DR. HOWE said that, in the case to which Dr. Ripley had referred, a considerable portion of the ulnar nerve had been removed, which was followed by complete loss of sensation for three months after the operation; then feeling began to return, and at the end of a year sensation in the parts supplied by the ulnar nerve was good. He thought the ends of the nerve had not united, because of the amount of nerve removed and the quantity of cicatricial tissue developed at the site of the operation.

Dr. T. R. Chambers presented a specimen of

SUBCLAVIAN ANEURISM TREATED BY NEEDLING AND GALVANO-PUNCTURE,

with the following history: Andrew J. Wyatt, United States, aged fifty-three, married, a printer. Inheritance and habits good; no syphilis; one attack of rheumatism lasting one month, in his ankles, about twenty years ago. The first symptoms of aneurism began three years ago with pain in the little finger of his left hand, and gradually extended into the arm and whole upper extremity. In January, 1880, the subclavian aneurism had become a prominent tumor upon the left side of the neck, with visible pulsation, thrill, and bruit. The pain was chiefly referred to the upper extremity, scarcely any being felt in the tumor itself. At times large quantities of morphine were necessary, and occasionally his mental disquietude required the addition of a mixture of chloral and camphor, equal parts; which proved of great service for disturbed sleep and calmed his maniacal tendencies. Dr. Weir examined the patient and found a continuous bruit across the manubrium sterni, that did not seem to be cardiac; but which, together with the patient's complaint of pain in the cervico-dorsal spine, led him to suspect dilatation of the arch of the aorta. The cardiac physical signs failed to reveal any pathological changes. The tracing of the left radial pulse, obtained with great difficulty on account of the smallness of the current, yielded the usual wavy descent found with obstruction along the course of an artery. In March, there was œdema of the left upper extremity, as well as of both ankles, and the doses of morphine had reached the enormous quantity of thirty centigrammes in a single day. On March 30th he had a sudden attack of dyspnœa, and for two weeks was compelled by weakness to remain in his chair. being unable to walk: dorsal decubitus was also uncomfortable. On April 23d, he had a chill and fever, with abdominal pain and swelling; and the same symptoms were repeated on May 31st, when the abdominal swelling assumed quite an extensive size, requiring surgical interference to evacuate a cupful of pus, from an abscess in the abdominal wall.

In October last, a plaster cast was taken of the shoulders, neck, and a large external tumor rising above the left clavicle, between it and the trapezius behind; this was bounded externally by the acromial end of clavicle and rose internally almost to the border of the inferior maxilla. There were at no time symptoms of pressure upon the trachea or carotid, but only signs of compression of the nerves of the left cervical plexus and of the veins of same region, together with a diminished blood-supply.

October 8th.—The aneurism has slightly increased in size, and shows a tendency to pointing; and the pain in the region supplied by the brachial plexus has become so excruciating that the patient wished to try anything to relieve his sufferings.

Needling.[1] Six milliner's needles, four and a half centimetres long, were introduced, and on the next day nine more were inserted into the tumor, care being taken to avoid the direct blood-current. Some of the needles gave slight pain on piercing the skin, others none. After remaining imbedded in the tumor for six days, a drop or two of pus appeared about the punctures, and the needles were removed; there was no apparent change in the aneurism.

October 24th.—There is visible pulsation and expansion in every available part of the tumor. A thrill is felt posteriorly adjacent to the neck, and a distinct bruit is heard everywhere, especially over the region of the thrill. The blood-current approaches the surface in several places, and very threateningly at points of pouting.

Galvano-puncture.—With the kind advice and assistance of Dr. E. Evetsky and Dr. G. L. Knapp, galvano-puncture was resorted to. The apparatus employed was a Stöhrer's battery of twenty-one cells; a rheostat, by which the intensity of the current could be gradually raised or lowered between a single couple and the full strength; and six milliner's needles, eight contimetres long, with their points changed to sharp, flattened spear-heads; the latter were insulated by collodion, which increased their size from No. 2 to No. 4 French. Three centimetres of polished steel was to be exposed in the tumor; and the collodion coating proved a most handsome and effective insulator.

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[1] See Heath on this operation. Lancet, January 31st, page 168.

First séance.—The patient being etherized, two needles were inserted parallel to each other, two centimetres apart; then a strong galvanic current was passed through them and the poles alternated every five to eight minutes. They remained inserted about forty-five minutes, and when withdrawn a peculiar black and blue appearance of the whole upper extremity (arm) was noticed. One of the needles had also entirely lost its exposed steel, which had been utterly consumed, not broken off—an accident which has happened to some experimenters; the other needle was rough, black, and thinned. Their removal was accompanied by an escape of gas and tarry fluid. The patient passed pleasantly out of the etherization; a slight change in the size of the tumor was observed; the thrill was diminished; and there was also a seeming condensation of the contents of the aneurism beneath one of the punctures.

Second séance.—Since the first séance, four days ago, there has been no change in the tumor, nor in the patient's condition, which is good. He was now etherized with difficulty, and a current of twenty-one cells was passed for forty minutes through two needles which were inserted as before. Within five minutes a scarlatinoid rash appeared on the left shoulder and upper extremity, and gradually darkened and became black and blue, in irregular patches. The thrill disappeared. On withdrawing one of the needles, a subcutaneous hemorrhage occurred, forming a secondary blood-tumor quite as large as the original aneurism: but pressure finally controlled it. After fifteen minutes' interval, two fresh needles were introduced in other places near the thin parts of the sac, and the current was passed as previously described, by alternating the poles every five or eight minutes, for forty minutes. On withdrawing one of the needles, a bright arterial stream spurted out of the puncture, but this was soon controlled by pressure.

The patient did not come out of the etherization, but went into a state of coma, from which he only partly emerged two days later, but with external strabismus, almost constant nausea and vomiting: and for four days he had severe headache, and complete loss of vision even to recognition of light. The black and mottled appearance of the arm gradually disappeared at the end of a week: and blebs, which had formed upon the palmar surfaces of the second and ring fingers, gradually dried up after two weeks: ecchymotic spots scattered over the hand and arm also disappeared.

For three months after the operation, there was a great amelioration of the symptoms, so that the patient only had to take an occasional dose of morphine. But by March 6th the tumor had attained to the size of a baby's head, and had three places of pouting where the sac-wall was scarcely as thick as paper; and for the past fortnight the pain in it had become very severe: formerly the pain had been confined to the shoulder, arm, and hand. His body was constantly bathed in perspiration; his mind wandered; vision was completely lost; but his hearing was very acute. He now refused to swallow any nourishment lest in the effort the aneurism should burst; but at 2 A.M., the upper place of pouting gave way while the patient was at stool: the blood squirted across the room and struck the opposite wall; and oozing continued for four hours; notwithstanding the pressure applied.

On March 9th, a second rupture occurred from another place of pouting, and the oozing lasted half an hour.

On March 10th, a third hemorrhage from a reopening of the upper place of pouting occurred, and it required digital pressure for an hour and a half to stop it.

March 14th, 12.30 A.M.—Patient was drawn up in bed for half an hour by agonizing pain in the tumor, when suddenly his pain was relieved and he died quietly. There was a slit two centimetres long in the upper and anterior part of the tumor.

Autopsy.—Twelve hours after death. *Body not* emaciated; features placid; no œdema. There is a depression in the left supra-scapular region, where the tumor had existed; and the left upper extremity was atrophied.

Abdomen.—The subcutaneous adipose tissue was abundant. The muscular layers on the right of the median line, where the umbilical tumor* had presented, were thinned. Peritoneal adhesions over a surface an inch square anteriorly upon the right lobe of the liver; *none elsewhere.* There was injection and slight thickening, for a space the size of the palm of the hand, at the site of the abscess in the right lumbar region. *Vermiform appendix* normal. *Intestines* also.

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* **Reported in the New York Medical Journal, December, 1880.**

Thorax.—No adhesions. There were no signs of pressure upon the sternum or the spine. *Heart,* in normal position, small, firmly contracted, hard, and anæmic: *no hypertrophy;* in fact the left ventricular wall seemed thinner than it should be, and its muscular tissue was brown. Aortic valves slightly atheromatous and thickened.

Kidneys, both nearly of normal size. Capsules not adherent. Slight increase of connective tissue in cortex.

Spleen, not abnormal. *Liver,* slightly large, somewhat fatty.

Aorta.—Immediately upon leaving the valves it was greatly dilated in circumference and length throughout. Its lining membrane had numerous elevations and depressions, indurations and scars, ulcers of recent endarteritis and cicatrices, so that there was scarcely any normal appearance. The openings of the innominate, left carotid and subclavian, and of the descending aorta, were enlarged and atheromatous. The descending aorta was normal, except at its commencement. There was a branch given off just below the innominate artery, which probably supplied the collateral circulation to the left upper extremity. The branches were all given off near the descending aorta. The dilatation was more extensive between the aortic valves and the innominate than elsewhere.

The subclavian artery branched off just above the aortic opening, and for eight centimetres it was irregularly dilated and atheromatous: it had two or three very small branches and blind pouches, and emptied by a constricted ring into the *subclavian aneurism:* which was a pear-shaped tumor about thirteen centimetres long and nine centimetres wide at its base, extending, when distended, from the inferior maxilla to the second rib; lying upon it and the first rib, which was included in its cavity; and in close apposition with the carotid artery and side of the neck. Behind, it pressed upon the cervical plexus: externally, upon the scapula and clavicle; and anteriorly, upon the clavicle, which was also included in the aneurism for a distance of four centimetres. Both the first rib and clavicle are eroded. The sac itself was thin in places;

but strengthened by laminated blood-clots. The six punctures made by the galvanic needles were readily seen, and one was in the centre of a black infiltration, one centimetre square. There did not seem to be any connection between the blood-clots and the punctures. There were a number of dark clots adhering to the sides of the aneurism, which could be washed off by a gentle stream of water. The fatal rupture did not start from a puncture. A few small arterial twigs were seen, and the axillary artery was only about the size of a lead of a pencil. There were no vestiges of the first needling operation.

This case was interesting for a number of reasons: 1st, on account of the rarity of subclavian aneurism on the *left* side; the long duration of the disease in its advanced condition—for the patient carried a pulsating tumor of the size of an orange on the side of his neck for two years and a half; and a fortnight before death it was as large as a child's head. Three hemorrhages, through openings in the sac, occurred during the last week before the fatal rupture. The strange sequences of the galvano-puncture operation or of the etherization: or was there blood-poisoning? A clot probably formed at one pole, was broken up again when the current was alternated, and thus a large quantity of foreign matter was thrown into the circulation at the two séances. Or was there renal disease? The urine was examined carefully, and contained only a faint trace of albumen.

The autopsy revealed a second aneurism of the arch, with extensive ulcerative endarteritis of the same; it also confirmed the diagnosis that the iliac abscess was confined to the abdominal wall; and showed that, notwithstanding the immense obstruction to the circulation by the two aneurisms, the heart was not hypertrophied, nor was there insufficiency of the valves.

Galvano-puncture, for the cure of intra- or extra-thoracic aneurisms, has scarcely had a fair trial in this country, while in Europe it has had careful study. The first cure reported was that of Petrequin, in 1845, of a temporal aneurism. Then followed a number of failures, and the Italian Commission formed at this time was very sceptical. In 1846, Ciniselli tried it for the cure of aneurisms of the aorta. England, Germany, and France have had many experiments, and especially valuable have been the results obtained by Dujardin Beaumetz and his pupil, Dr. Laurent Robin.

Robin says: 1. It is scientific and rational, and yields practically good results. 2. It is the best therapeutical agent employed thus far: for it determines in an aneurismal sac the formation of a clot susceptible of organization. 3. The positive pole alone should be introduced into the tumor, to obtain a firm and resistent clot. 4. This mode of treatment, when employed with all the precautions pointed out in his work,* is devoid of all danger of embolism, hemorrhage, suppuration, gangrene, or of any other unpleasant accident. It invariably procures relief, even in desperate cases.

An old idea was that coagulation was due to inflammation of the sac surrounding the punctures: another was that the electric current itself caused clotting. [Dr. Smee (Royal Soc. Trans., 1863) passed oxygen and hydrogen through an albuminous fluid and obtained a substance resembling fibrin.] Robin is certain that coagulation is due to the chloride of iron and acid formation of the positive pole; while it is generally agreed that the gelatinous froth of the negative pole does not tend to organization. The operation is painful, but this is relieved by etherization: and the gas formed in the aneurism during the performance is never sufficient to embarrass the patient. The needle-punctures may be so small there need be no fear of hemorrhage, especially if pressure can be applied. The current should not be less than about twenty-one cells of a Gaiffe, Bunsen, or Stöhrer battery: it should gradually be increased from zero to the greatest intensity, and *vice versa;* and it should be continued about five minutes upon one needle; then upon another, inserted a short distance off; and so on, upon several needles: it should *not* be alternated. When the two poles upon two needles are introduced, the action is more energetic, and the clot is formed more rapidly, but is imperfect and soft. No clot is formed by the negative needle, but that of the positive is solid, resistant, and adherent: and it seems probable that, in the case just cited, the induration within the tumor was changed, when the current was alternated, from a firm consistency to a frothy, gelatinous, and easily removable matter. Perhaps so much foreign substance thrown suddenly into the circulation was the primary cause of all the peculiar phenomena of central disturbance following the second séance.

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* De l'électro-poncture dans la cure des anévrysmes intra-thoraciques. 1880.

Robin thinks the clot is due solely to chemical changes, and suggests always using iron or steel needles, rather than platina, zinc, or silver: the chloride of iron and acid formation at the positive pole being the prime factors. The clot, he says, "is a coagulation of albumen, solidification of fibrin, and an exudation of plastic lymph."

With regard to the apparatus, it is necessary to have one like a Gaiffe or Stöhrer battery, of about twenty-one small elements, as these produce the least amount of thermic action, and the greatest intensity of electro-chemically decomposing and destroying power. The battery of large surface elements is useful as a galvano-cautery; the smaller, in coagulating or dissolving, according as the positive or negative pole is used.

An extensive bibliography of the subject may be found in Robin's work, and the statistics of the operation are easily summarized. In the table below, the term amelioration refers to lessening of the pulsation, arrest of development in the tumor, relief of pain, partial, or complete, and alleviation of the dyspnœa. In most of the cases, probably there was only one séance: in others, even a dozen or more.

Comparing it with ligation (Norris' table of ligatures) with 33.1 per cent of death, galvanism had only 12.9 per cent, including the bad success of Ciniselli. Hutchinson, in 1856, compared it with compression, and found 25 per cent success and 29 per cent failure in compression; 24 per cent success, and 30 per cent failure in galvanism.

	No. of Cases.	Observations		Amelioration.	Success.	Failure.
Hospitals of Paris..........	12	7	Aortic. 12	12		
			•			Alternation of poles.
1846 to 1868....	21	French.	21	3	5	13
		Others than				
1870 to 1879.....	22	French.	....	7	11	4
M. L. H. Petit: *British Medical Journal*, Sept., 1880.	22	......	Intra-thoracic.	... ...	30	7
	114		Extra-thoracic.	....		1
			Aortic.		Complete cure.	Uninsulated needles.
			37		6	3
	37		Inom. carotid & subclav.			
			13		3	6
Duncan: *Brit. Med. Jour.*, 1876.	13		External iliac.			
			2		1	36
	2		Femoral popliteal humeral			
			20		13	3
	20		Small vessels.			
	8		8		6	
Total.........	89				31	12
Grand Total....	338			22	142	49

The figures opposite amelioration might be much larger, but are omitted in many cases.

SYPHILITIC MENINGITIS—DIFFUSE CHANGES IN THE SPINAL CORD—CYSTITIS AND PYELITIS.

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Dr. Wm. H. Porter presented a specimen with the following history:

W. M., aged fifty-nine, married, and a druggist, was admitted to the Presbyterian Hospital December 18th, 1880. Twenty years previously, he contracted a chancre, followed by secondary symptoms. His habits were temperate as regards alcohol, and his general health had seemed good, notwithstanding his syphilitic infection. The first serious trouble he had dated back three months before his admission; he fell down-stairs striking upon his head, and was unconscious for several hours, but recovered promptly and had no further unpleasant symptoms until a week before admission, when retention of urine caused him to call on a physician.

On admission, his temperature was 102° F., and pulse 120. When standing, he became dizzy, when his eyes were closed, and his walk was ataxic. There was no paralysis of any muscles, and the dynamometer showed no difference in his hands. No pain, but rather cutaneous anæsthesia. His speech was thick, and some deafness had increased gradually from the date of his attack. The pupils responded promptly and equally to light. His tongue was coated and breath offensive. The tibiæ were very tender. The average quantity of urine was twenty-two ounces, and microscopic examination showed pus in large quantities; its reaction was strongly alkaline. His water was drawn three times daily, and the bladder was washed out with a dilute solution of nitric acid (acid. nitric. dilut., ♏i. to aqua ℥ i.), Potass. iodidi was given internally. On December 22d, he lost control of his anal sphincters. On December 24th, he had hiccough. His temperature had fallen to normal, but his pulse remained rapid. At 10.30 P.M., he fell into a comatose condition; temp. 101° F.; pulse 100; resp. 20. The kidneys continued to secrete water freely, but the catheter had still to be used. The coma gradually deepened, and he died at 9 o'clock A.M., December 25th.

Necropsy, December 26th, 1880.—Two scars were observed on the penis, and a large copper-colored cicatrix existed just above the internal malleolus of one leg.

Thoracic cavity.—The *heart* weighed eleven ounces; substance normal. All the valves were thickened, and exhibited clearly the usual lesions of endocarditis. The *lungs* were slightly adherent at the apices, with the usual localized condensation of tissue found in connection with old pleuritic adhesions. Both organs were congested and œdematous.

Abdominal cavity.—Spleen normal, both in weight and consistency. The stomach and intestines did not furnish any noteworthy signs of morbid changes. The *liver* weighed fifty-six ounces, and showed no special evidence of disease.

Genito-urinary tract.—These parts were specially interesting. The bladder showed evidence of cystitis, was sacculated and distended, containing at the examination 130 cc. of milky-looking urine. Both ureters greatly dilated, the right especially. The pelves of both kidneys were dilated: the right contained pus, and its mucous membrane was red and dotted with ecchymotic spots. The whole superficies of the right kidney was marked by small, yellowish, solid deposits of a cheesy appearance; and on microscopic examination these collections were found to be composed of rounded corpuscles resembling leucocytes, with an admixture of molecular débris and oily matter.

Head.—On removing the calvarium, an excess of serous fluid escaped, and all the vessels of the meninges were found unduly distended with blood. Some difficulty occurred in removing the bone, because it was firmly adherent through the dura, with the pia mater. Both these membranes were also abnormally thickened and opaque in patches, most noticeable at the base and in the Sylvian fissures. Further, the brain substance was more than usually vascularized, especially the left lobe of the cerebellum, and the medulla.

On removing the cord its pia mater was found noticeably thickened. In addition, the microscope showed that there was an extension, inwardly from the pia, of newly-formed connective tissue: while the vessels were contracted, hypertrophied as to their coats, and distended with blood. In many places, there was a diffuse collection of leucocytes in the contiguous tissues.

Two pathological conditions were especially noteworthy: one the disseminated foci in the right kidney, and the other the vascular changes in the cord. The former were probably gummata: the latter, a hyaline change in the blood-vessels, possibly amyloid, and also due to syphilis. The case was specially interesting in connection with the present interest in syphilitic lesions of blood-vessels. Sections from the cord, when compared with others, showed a marked thickening of the vessels and interstitial tissue.

The thickening of the vessels and general sclerosis seemed to be the only way in which the partial paralysis and lesions of the genito-urinary tract could be explained. A number of observers have noticed and recorded a similar thickening of the cerebral vessels.

TYPHOID ULCERATIVE ENDOCARDITIS.

DR. GEO. L. PEABODY presented a specimen with the following history:

E. W. C., aged twenty-three years, native of the United States, bookbinder, was admitted to the New York Hospital, April 20th, 1881. His mother died of consumption. He had had no articular rheumatism, and was perfectly well up to three weeks ago, when, upon returning from New Orleans, he had a chill followed by fever, sweating, and great prostration. Four days later, he had a second chill of similar nature. These symptoms were followed by great prostration, emaciation, feebleness, anorexia, and a general stiffness in his joints. He had a slight cough, and on two occasions noticed dark, clotted blood in the sputa; but no pain in the chest or precordium, and no shortness of breath; nor night-sweats or swelling of feet. Urine highly colored; bowels regular.

On admission.—Pulse, 100 ; respiration, 24 ; temperature, 103.6° F.; is emaciated; very anæmic; skin hot, dry, sallow; no eruption; some tenderness and pain in the knees and ankles, and also in his legs; no œdema ; tongue thickly coated and moist; pulse soft and compressible. Examination of lungs negative: but a loud double murmur was heard over the apex of the heart; and the apex-beat was displaced below and outward. He was put upon salicylic acid, gr. xv. every two hours. Subsequently Bland's pills were given; urine normal. For a week his symptoms did not change, his temperature varying between 101° and 104° F., with evening exacerbations.

April 29th.—He complains of pain in the precordial region, with dyspnœa and palpitation; and has emaciated rapidly. Salicylic acid was discontinued, and he was given quinine and quebracho. His joints remained painful and tender, and now became swollen, but never red. The area of precordial dulness was increased toward the left; but there was no precordial murmur.

May 3d.—Coughed much last night, and this morning has viscid expectoration, with blood-streaks. He has had no chills since admission, and his temperature is unchanged. Sibilant and sonorous râles were heard over both lungs, and a few râles behind, low down.

May 5th.—Tubular breathing and other signs of consolidation were noticeable from the apex of the right lung down to the nipple line. He was much prostrated, and losing ground every day. He was freely stimulated without benefit, and continued sinking steadily, with temperature elevated as before, until May 21st, when he died at 5.30 A.M. The heart-sounds had remained unchanged.

Autopsy, May 21st.—There were 250 cc. of serum in the pericardium ; but the object of chief interest was the heart: the posterior segment of the mitral valves had an enormous mass of recent vegetation adherent to it, causing it to appear rather more than a centimetre in thickness. The anterior segment was in a similar condition, but less thickened. On removing some of this mass, the valves were seen below deeply ulcerated. Many of the chordæ tendineæ were entirely eroded. The left ventricle was somewhat dilated. In both lungs there were extensive areas of catarrhal pneumonia. There was nothing else in the autopsy bearing upon the clinical features of the case. The microscopic examination of the liver, kidneys, and lungs revealed no micrococci. Dr. Peabody was inclined to regard the case as one of ulcerative endocarditis, in which the character of the symptoms was typhoid rather than septic. Like many of the cases already recorded, this one was associated with pneumonia, and, unlike many of them, it was connected with rheumatism. The so-called rheumatism, however, did not develop until after the chills and fever, which ushered in the endocarditis.

NOTE.—See Bulletin, pages 29 to 32.

Dr. Peabody also exhibited a specimen of beginning

ANEURISM OF THE HEART,

from a man seventy-nine years of age. The aneurism was situated in the apex, its favorite location. The patient suffered from dyspnœa and palpitation, and died suddenly.

NOTE.—In Volume I. of the Transactions, nine cases of aneurism of the heart are reported, all in the left ventricle.

Dr. Peabody also presented a specimen of

PRIMARY CANCER OF THE LIVER,

from a woman fifty-seven years of age, who had given a distinct history of pain in the hepatic region during the last eighteen months, without tumefaction in that region. The gastric symptoms were slight. The liver was not increased in size, and the cancerous deposits were chiefly in the interior of the organ. The stomach was normal. The only secondary deposit was in the mesenteric glands.

Toward the close of life there was marked jaundice. There was no centre of infection in any of the large biliary passages.

NOTE.—In Volume III. of the Transactions, pages 17 to 42, thirty-two cases of cancer of the liver are reported, only three of which were primary.

DR. V. P. GIBNEY presented a child, five weeks old, with

CONGENITAL DISLOCATION (?) OF THE LEFT TESTICLE.

It was without history. There was no testis in the left side of the scrotum, but above and toward the perinæum, a body with a cord attached could be distinctly felt.

DR. A. JACOBI remarked that the left half of the scrotum was smaller than the right, and did not seem so well developed. The testicle was perhaps a little larger than normal, and seemed to be attached laterally, probably by intrauterine inflammatory processes; and therefore, was, not suspended in the scrotum. If his explanation was correct, it would show that the scrotum ceased to grow as soon as the inflammatory process took place.

DR. LANGE thought there was some effusion around the testicle, and that it was not adherent.

CYSTO-SARCOMA (?) OF THE BREAST.

DR. A. JACOBI presented a tumor from the left breast of a girl sixteen years of age. Probably it was of old standing. He exhibited it on account of its size: it weighed 545 grammes. There was no history of malignant disease in the family. The mass contained a number of cysts, and had the gross appearance of cysto-sarcoma.

Dr. Heineman presented specimens of microscopic slides of three cases of

TUBERCULAR PERICARDITIS.

The *first* was a large transverse section of the parietal and visceral pericardium and heart-wall, prepared by Professor F. Delafield, who obtained the specimen from the body of an old man, who died of chronic dysentery. The disease was not suspected during life.

The *second* consisted of the microscopic slides from specimens obtained at an autopsy made by Dr. T. Mitchell Prudden, from a middle-aged man, who died of chronic Bright's disease. A few old caseous nodules were found in the lungs. In this case also, the disease was not suspected during life.

The *third* was a heart, which was accompanied with the following history:

A. S., aged forty-two, a German, single, and a fireman, was admitted to the Roosevelt Hospital December 7th, 1879. His family history was good, and he denied syphilis and rheumatism; but had been a moderate drinker. Except a slight attack of jaundice, six years previously, he had been well up to two weeks ago, when, after exposure, he was seized, without a chill or other constitutional disturbance, with cough and muco-purulent expectoration. At the end of a week he was compelled to cease work, and then suffered from loss of appetite and abdominal cramps: and a few days later, from dyspnœa, cardiac palpitation and weakness.

Upon admission, he was well nourished, his appetite was good, and he had a moderate cough with expectoration, and much dyspnœa. Examination revealed evidence of fluid in the right pleural cavity, and an increased area of hepatic dulness. Urine, 1030, acid, with a trace of albumen. From December 8th to 31st, his temperature ranged between normal and 102° F. The dyspnœa and the fluid in the pleural cavity gradually disappeared, and on January 7th he left the hospital, having gained strength and color, but still having some cough and weakness.

On March 31st, 1880, he was readmitted, stating that, after exposure six weeks previously, his cough grew worse, and the dyspnœa returned; his urine became scanty, and micturition frequent; his abdomen was swollen, and three days ago some œdema of the face, feet, and legs showed itself. He was able to work, and had a good appetite up to one week ago. Now he has a heavy epigastric pain, with dulness over the right chest. Urine 1030, with a trace of albumen. April 27th.—Has prolonged expiration at both apices, and friction-râles over both lungs, with dyspnœa, slight cough, œdema of the feet and legs, and is losing flesh and strength. In May, hectic fever, night-sweats, severe cough, inability to lie on the left side, and headache followed. In June, hyaline casts and increase of albumen to fifty per cent in the urine. On June 22d, the apex-beat of the heart could not be made out, and the heart-sounds were feeble and growing weaker. July 2d.—Pericardial friction could be felt by the visiting physician, and pericardial rubbing-sounds were heard. A week later (July 9th), no friction sounds could be distinguished, although the heart-sounds were audible in the normal position, but loudest to the right of the sternum. July 10th, he was delirious, and August 1st he had a convulsion, became comatose, and died.

During April, his respiration varied from 24 to 36, and his temperature from 98⅗° to 100⅘° F. During May, his temperature changed from 98½° to 102⅗° F. Throughout June, his temperature was normal. During July, his pulse varied from 72 to 144; respirations from 26 to 64; and his temperature from 98° to 102° F., but was normal during the last week.

Autopsy.—Body emaciated.

Brain.—Pia mater much thickened, opaque, and adherent in places to the dura mater; increase of serum beneath it. The lateral and third and fourth ventricles were dilated, and contained an increased quantity of serum. Upon the under surface of the brain, and over the anterior portion of the anterior tip of the temporal lobes were erosions of brain-substance, with yellowish gelatinous infiltration. The tip of the temporal lobe, and the optic thalamus with its immediately adjacent tissue, appeared softened.

Heart.—Very great thickening, with adhesion throughout of the visceral and parietal pericardium. The right and left ventricular cavities were reduced to less than half their normal size, and had degenerated and atrophied walls. The mitral valves were somewhat thickened.

Lungs.—The costal and pulmonary pleuræ were enormously thickened and adherent throughout, on both sides. On the left side the thickened pleura measured nearly three-fourths of an inch, and had considerable lymph inclosed between its layers, gelatinous in appearance. Between the pleura and diaphragm, there was a large quantity of flocculent serum. Fibrous nodules were scattered through both lungs.

Liver cirrhotic and increased in size. *Spleen* much enlarged. *Stomach.*—Chronic gastritis.

Kidneys.—Normal in size; striations not well marked; appear fatty.

Microscopic examinations in all of the three cases, above referred to, revealed giant-cells and tubercular granula in the visceral and parietal deposit, but not in the heart-muscle.

Reference was made to the recent editorial, in the London *Lancet* of May 28th, upon the subject. Whether tubercular pericarditis was a primary or a secondary lesion was a question which had not yet been decided. Tubercles were found in other organs of the body in Dr. Prudden's case, and in his own; but in Dr. Delafield's case none were discovered.

Dr. Ripley suggested that the symptoms before the occurrence of the friction-sound might have been due to myocarditis.

Dr. Heineman remarked that the man had disease of the kidneys and also pleurisy, which would account for many of his symptoms; and besides, he had a normal temperature during June, while in April and May it varied from the normal to 102° F. In June, the heart-sounds were lost, and in July a pericardial friction-sound was heard, and at the same time there was a rise in temperature; but during the last week in July it was again normal. So it would seem that the most prominent portion of the heart-lesion took place in July.

The presentation of the testimonials to Dr. George F. Shrady then took place, Dr. A. Jacobi representing the Society.

PRESENTATION OF A SILVER PITCHER AND SALVER TO DR. GEO. F. SHRADY, SECRETARY, BY THE MEMBERS OF THE SOCIETY, JUNE 22D, 1881.

Dr. Jacobi said: In former times I was no stranger here. I have been a member of this Society these twenty years, and long ago enjoyed the greatest honor this Society can bestow on any of its fellows. To-night I am the recipient of another unexpected honor, which I assure you, I appreciate very highly indeed. I have been selected by the Committee in charge to present this testimonial, and to address you, Mr. President, and the Society a few remarks of thanks and praise of a worthy fellow-member whom we all know, esteem, and honor.

For twenty-two years Dr. George F. Shrady has been the Secretary of this Society. He has filled that place as only he could have done it. His reports have been careful and fully correct. They have been a safe guide to our members, and a source of instruction to medical men in general. They have been read and studied all over the United States and abroad, and have contributed much towards fostering that love of pathological anatomy and its daily increasing study which we see amongst the profession. That he, while being our special Secretary for almost a generation, succeeded also in obtaining an extensive literary reputation; and, furthermore, by peculiar characteristics of his own, endeared himself to a large circle of friends and admirers—all this and more it is not my intention to-night to dwell upon. What I am directed to express to Dr. Shrady, in simple and plain words, is the appreciation of his long and valuable service by the members of this Society. We know quite well that he meant merely to perform his duty. Neither he, nor any other sterling man, works for thanks, or appreciation expressed in any way; for the best intellectual and social labor is always performed by those who work from an inner necessity only. But, when one man labors industriously, honestly, and usefully in the service of a society, a country, or a scientific body, it is both natural and becoming, it is good instinct and a wise principle on the part of those who have derived special benefit from his personal efforts, to prove themselves worthy of them by exhibiting some appreciation of the same, both by word or action.

Thus, Dr. Shrady, I have the high honor of offering you, in the name of the members of this Society, these small tokens of our grateful remembrance of your great services. May you live long to enjoy both them and the spirit of appreciating friendship which dictated the gifts.

DR. SHRADY'S RESPONSE.

Dr. Shrady, in accepting the beautiful testimonials, was at a loss to thank the Society in fitting words. Being at the disadvantage of one who had been utterly taken by surprise, he trusted that he would be excused from any attempt to respond to the eloquent and touching address of his friend, Dr. Jacobi. Indeed, with the best of preparation on his part, he doubted if Dr. Jacobi would have given him any opportunity for saying anything more, either of the subject so gracefully treated, or of the individual so pointedly referred to. He could, however, thank the members from his heart. While this was, perhaps, the least he could do, he nevertheless could do no more. The gift had a peculiar value to him, and he trusted that he would ever properly appreciate the sincere motives which had actuated its bestowal.

The Society then went into executive session.

STATED MEETING, SEPTEMBER 14TH, 1881.

Dr. Thomas E. Satterthwaite, *President, in the Chair.*
Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Strangulation of the lower end of the ileum in an opening in a false mesentery ....By Dr. Edmund C. Wendt.
2. Remarks on pulmonary consumption in young persons. By Dr. Abraham Jacobi.
3. On cancer, adenoma, and sarcoma of the female breast. By The President.

STRANGULATION OF THE ILEUM DUE TO A FALSE MESENTERY, PROCEEDING FROM A REDUNDANT SIGMOID FLEXURE.

Dr. E. C. Wendt presented a specimen which illustrated the above condition in a very perfect manner. He had removed it from the body of a young Spaniard, who died the night before. The history, so far as he had been able to ascertain it, was as follows: The patient came to this city from Mexico about two weeks ago. He had always enjoyed perfect health, and was endowed with a splendid physique; but about noon on the 7th of September, he was seized with a sudden and sharp pain in the right side of his abdomen, which, during the course of that day, seemed to diminish in intensity—so much so that he is reported to have enjoyed a bath in the evening, and a hearty supper rather late at night. At eleven o'clock, however, he again experienced a very severe pain to the right of the umbilicus; vomiting speedily set in, and continued with varying intensity up to the time of his death.

Dr. Rengifo saw him on the following day, when purgatives were freely administered and morphine in small doses prescribed:

Enemata were also used, but the absolute constipation continued. In the mean time, marked constitutional depression was developed, the abdomen became tensely swollen and tender, and the patient's condition grew agonizing. Dr. Cisneros was now called in, and the "purgative plan" was continued; but as the patient grew steadily worse, with unmistakable symptoms of peritonitis, Dr. L. Weber was asked to see the case in consultation, on the night of the 12th inst., near eleven o'clock.

Acute intestinal obstruction being apparent, Dr. Weber determined to perform an exploratory laparotomy on the following morning. Then Dr. Wendt saw the patient, together with Drs. Weber and Weir; his pulse was already feeble, and though the abdominal pains had been somewhat controlled by anodynes, the mental distress was great and his general condition far from reassuring. Nevertheless, it was decided to give the patient the chance of life by a speedy operation; but the anæsthetic produced alarming syncope, and the proposed plan of surgical interference had to be abandoned. Later on that day he again rallied, and the tympanitic distention of the intestines was then relieved by several punctures. But the good effects of this measure, together with liberal stimulation, were only temporary, and he died that night, apparently exhausted.

At the *autopsy*, the signs of a moderate diffuse peritonitis were found; and recent adhesions, which were readily separable, existed between adjoining abdominal organs. Low down in the pelvis a piece of strangulated gut, showing imminent gangrene, was discovered. The strangulated portion corresponded to the lower end of the ileum, being only about three inches distant from the cæcum; its length was about seven inches. The cause of the strangulation was found to be a round opening in a band of false mesentery attached to a redundant sigmoid flexure: and through this opening, which barely admitted the exploring finger, the intestine had slipped and become permanently fastened. The band extended from near the crest of the ilium, on the left side, to the internal inguinal ring on the same side, where it became lost in a puckering of the pelvic peritoneum.

Dr. Wendt was inclined to regard this thick and completely organized band which represented the false mesentery as a congenital malformation. Perhaps it had some connection with the unusual length of the sigmoid flexure, which showed a redundancy of over a foot in length. He thought such a condition of the sigmoid flexure was extremely rare in adults, though Dr. Jacobi had pointed out its comparative frequency in childhood, where it became a frequent source of obstinate constipation.

Doubtless the opening in the false mesentery had existed many years. Certainly there must have been a peculiarly unfavorable combination of circumstances before the gut could have slipped through such an aperture; and it did not appear from the history that any violent muscular effort or other bodily strain had preceded the fatal accident. The case was interesting also from a surgical point of view. The question at once suggested itself, whether the patient's life could have been saved by a sufficiently early operation. Probably the hidden position of the strangulated piece of intestine would have rendered laparotomy a prolonged and dangerous operation. On the other hand, after a discovery of the mechanical cause of the obstruction, the mere cutting of the strangulating band would have been a very simple and harmless procedure. It was to be deplored that we had no means at our command enabling us to locate with more reliable exactitude the situation of an obstruction, in cases like the present one.

Dr. Ripley asked if, in the treatment of the case, water was used to distend the intestine and remove fecal matter.

Dr. Wendt replied that it was, but that no fecal matter escaped; there was only a yellowish discharge. He considered the opening, through which the loop of intestine had passed, to be congenital. The sigmoid flexure was extremely long, resembling the condition which had been described by Professor Jacobi as a cause of obstinate constipation in children.

Dr. Peabody remarked that a somewhat similar case came under his notice some three years ago, in which the patient died from an internal strangulation of a diverticulum of the ileum. In that case there was an adhesion uniting a part of the diverticulum with the mesentery, leaving an open space of perhaps two inches, through which seven feet of the intestine, chiefly of the ileum, had passed, and became strangulated. At the autopsy even, it was difficult to discover the lesion, and it suggested itself to his mind that any attempt at an operation would have proved unsuccessful. He did not think any surgeon would dare to handle the intestine so freely as was necessary to find the constricting band.

DR. TAUSZKY thought that, in the case reported by Dr. Wendt, the patient might have recovered if the band had been divided, and that the operation was feasible. He had seen reference made to a case in which a German surgeon removed several inches of intestine which were gangrenous, stitched the divided ends together, and the patient recovered. Without an operation, all these patients died; hence any procedure which held out even a remote chance of recovery should be undertaken. As regards collapse interfering with the progress of such an operation, he thought the intravenous injection of ammonia might overcome that difficulty. Experiments had shown that it was possible to keep patients alive by this means half an hour longer than they otherwise would have survived, and thus enabled them to converse with their friends. He thought in extreme cases an operation ought always to be undertaken. If the patient was placed with the pelvis elevated as in ovariotomies, the intestine would fall away so as to bring the parts within the pelvis into view.

DR. WHITE asked what form of ammonia was injected, and its strength.

DR. TAUSZKY replied that the ordinary aqua ammonia, diluted one-half with water, was used.

THE PRESIDENT inquired if it would not be more difficult to expose the intestine, in such a case as reported, than in ordinary ovariotomy.

DR. WENDT answered that the small intestine was enormously distended with gas, and he thought the first incision into the abdominal cavity would have resulted in its bulging out of the body. This he believed would increase the danger of the operation. At the autopsy, the distention was less than during life, but even then it was difficult to get the intestine back, notwithstanding that the ordinary long incisions for full post-mortem examination were made; and it was necessary to make punctures into the bowel before it could be returned.

DR. JACOBI remarked that Dr. Wendt had alluded to the fact that the sigmoid flexure was very long in the fœtus, new-born, and children generally, up to the age of five, six, or seven, and that this gave rise to very serious constipation. He was not aware that a very long sigmoid flexure was common in the adult; certainly not so long as the one described by Dr. Wendt. He thought it very possible that the opening was due to a congenital defect, and perhaps had something to do with keeping up the disproportion of this part of the intestinal tract. It seemed to him that the connection between the two was not improbable. This was simply a suggestion on his part; he had no explanation to offer, but was desirous of learning whether anything was known on the subject.

DR. WENDT thought the supposition a very plausible one; but perhaps the band was the result of early fœtal inflammation, which also led to the continuance of the disproportion.

DR. JACOBI said that he had tried to ascertain if there was an adhesion between the sigmoid flexure and this band.

Dr. Wendt said there was one.

THE PRESIDENT thought the appearance of the ring was in favor of its being of congenital origin. It did not look as if it were caused by inflammation; otherwise there would have been inflammatory changes elsewhere. As to the cause of such congenital openings, we knew very little.

NOTE.—In Vol. II. of the Transactions, pages 118 to 126, nineteen similar cases are reported.

DR. JACOBI presented specimens of

PULMONARY CONSUMPTION IN YOUNG PERSONS.

There are some peculiarities in the occurrence and appearance of pulmonary consumption in the young. First, it was a statistical fact that, of a hundred deaths from pulmonary consumption, about five or six per cent occurred below the age of five years; two or three per cent between five and ten; two or three per cent between the ages of ten and fifteen; twenty to twenty-five per cent between the ages of fifteen and twenty-five; twenty to twenty-five per cent between the ages of twenty-five and forty, and the remaining above forty. There were other peculiarities which it was worth while not to overlook. Among these was the fact that the destruction of pulmonary tissues was not so extensive in the young as in those more advanced in age: children died before they developed large cavities. As a rule, the signs belonging to large cavities, and all the other anatomical conditions of pulmonary disease, were not so noticeable in children as in those more advanced in years. Another point was that hemorrhages in children were not so frequently found among the clinical symptoms; and hemorrhagic infarctions, particularly, were by no means common; they were rare.

A specimen of lung was presented, from a child between the ages of ten and eleven years, who had been admitted to the doctor's ward in the hospital, discharged, readmitted, and then finally died in the hospital. There was one peculiarity about the child that appeared to have marked him out for pulmonary trouble; he had, in contradistinction to his family, who were robust and healthy, a narrow chest, due to excessive shortening of the cartilages of the ribs, particularly in the upper part. It was known that early ossification of the ribs had a tendency to produce pulmonary disease; simply because the development of the chest was thus prevented, and in advancing years the lungs could not expand. This, he believed, had been proved, by no one better than by Freund, some fifteen years ago. There was no ossification in the case reported, but the cartilages of the ribs were excessively short. In the early part of the attack, there was considerable dulness about the clavicles, toward the median line, attributable to and dependent upon great swelling of the bronchial glands. He would further say that miliary tubercles were rarely found during the first year of life; afterward, for some years, they were more frequent.

In examining the specimen, the first thing noticed was the implication of the pleura all around, diaphragmatic as well as pulmonary: second, the density of the lung-tissue. In the upper part of the apex was a cavity lined with a pyogenic membrane: several other cavities contained a considerable amount of dry, dense hemorrhage; and in one very near the pleura, with no pyogenic membrane surrounding it, there was a fresh deposit of coagulated blood. In the midst of a good deal of hard tissue, many small cavities were found; dilated bronchi: and a number of other cavities were the result of hemorrhages, which had taken place at some previous time. Almost all the adjoining glands had undergone hyperplastic enlargement and pigmentary discoloration, and showed the beginning of caseous degeneration. The walls of the bronchial tubes were very much thickened.

The child had been sick for a number of years, and had had plenty of time to develop the different sorts of bronchitis and peribronchitis. In fact, it had suffered from complex conditions: first, from scrofula and general adenitis, then from caseous pneumonia, bronchitis, dilatation of the bronchi, hemorrhagic infarctions, and extensive chronic pleuritis.

Dr. Peabody inquired what was the condition of the other lung.

Dr. Jacobi replied that there was a great deal of peribronchitis, but no large cavities.

Dr. Ripley asked if there were strong adhesions to the chest-walls.

Dr. Jacobi answered that the adhesions were particularly strong, so that in removing this lung a rupture took place.

Dr. Ripley asked which of the lesions was supposed to be the primary one.

Dr. Jacobi believed it probable that pneumonia was the original lesion, as in the beginning of his observations, supraclavicular dulness was noticed, and had been permanent.

Dr. Ripley thought the specimen resembled several which he had seen, in which the original lesion was pleurisy. He had reported a case in which the primary disease was subacute pleurisy. The patient had empyema, but, finally, the fluid was absorbed, and after a year or so a cough was developed. The patient was admitted into the hospital, finally died, and at the autopsy a condition very similar to the one presented in the specimen exhibited was found. The lungs had to be peeled off from the ribs, and impressions of the latter remained on them.

SOME POINTS IN THE DIAGNOSIS AND PROGNOSIS OF CARCINOMA, ADENOMA, AND SARCOMA OF THE MAMMA.

THE PRESIDENT, Dr. T. E. Satterthwaite, presented a large number of microscopic slides illustrating cases of these and other changes in the breast. He observed that, in hastily looking over his notes, and taking account of one hundred and one growths and conditions simulating them, occurring consecutively, the following figures were found to represent their comparative frequency: scirrhous carcinoma, 80; medullary carcinoma, 3; colloid, 2; sarcoma, 4; cysts, 4; adenoma, 3; fibroma, 3; gumma, 1; chronic abscess, 1; total, 101.

SCIRRHOUS CARCINOMA OF THE BREAST.

He first showed microscopic sections of a scirrhous carcinoma, which were worthy of attention. The history of the case was as follows:

A. M. R——, now sixty-three years of age, formerly a nurse in St. Luke's Hospital, first detected a nodule in one breast, in December, 1873. It was removed in the March following by Dr. George A. Peters, and has never returned. Her health is now good. She has, therefore, enjoyed immunity for more than seven years. This example of an operation performed three months after the inception of the disease argues well for the prevailing theory that early operations tend to increase the duration of life.

A still more remarkable case, however, was that of a lady now living in Orange, N. J., from whom a mammary tumor was removed by the operator already mentioned, in 1876. With her the disease appeared nine and a half years ago. But this case has been surpassed by one occurring in the private practice of Dr. Weir, where, at last accounts, the disease had persisted or returned for more than sixteen years, the patient having undergone several operations, but still preserving fair general health. In this connection it was interesting to know that he had found the average duration of life in scirrhus, in the various parts of the body accessible to the knife (fifteen cases), to be about twenty months.*

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* Observations on One Hundred Cases of Carcinoma. By Drs. T. E. Satterthwaite and W. H. Porter. N. Y. Med. Jour., 1879, and Vol. III. of the Transactions, 291 to 335.

SARCOMA OF THE BREAST.

Dr. Satterthwaite next exhibited a microscopic slide of a sarcoma from a patient at St. Luke's Hospital, Feb. 19th, 1873. The history was as follows: About two years before admission, the patient observed a small lump in the lower part of the right breast, which grew gradually in size, but gave no pain until the latter part of January, 1873.

On examination, the following points were noted: The breast surface was nodular, but the skin was nowhere broken, and there was no retraction of the nipple. It was also freely movable, except at one point, where it seemed to be attached to the skin. The pain was lancinating, but intermittent, and there was tenderness to the feel. No enlargement of axillary glands. General condition good. The tumor was removed by operation, and the patient discharged cured. It was noticed in the subsequent examination that in consistency the growth was semi-solid; it was also round, soft, friable, lightly attached to its capsule, contained cysts, was undergoing softening at the centre, and had a dull, pale color. The cavities contained a glutinous substance.

Microscopically the tissue was composed of abundant rounded corpuscles imbedded in a scanty basis-substance, which was occasionally fibrillated. Remains of duct-structure and vessels were found in some parts of the growth. A qualified prognosis was given in this case, the statement being made that "in many cases there is no recurrence after removal." It is, therefore, interesting to know that this patient is still in good health and has had no recurrence: the immunity has lasted over eight years.

In another case of sarcoma, of which there is recent information, the patient, a widow, was first attacked in her fiftieth year. The disease was characterized by dull, stinging pains, and there was a discharge of watery fluid. The glands also were enlarged. It was removed July 12th, 1872 (Drs. J. L. Little and C. A. Loring). There has been no return, and the patient merely finds that the cicatrix is apt to be sensitive at times. Immunity over nine years. These facts are interesting, as we are now attempting to classify these mammary neoplasms so that a clinical distinction and prognosis may be more easily made; for it is well known that both of these points are still wrapped in much obscurity. It will be observed, however, that in this case the nodular outline, semi-solid consistency, discharge from the nipple, which was not retracted, and partial adhesion to the skin, are all qualities that have been claimed for sarcoma; while the naked-eye appearances seen on the sections, and the general aspects of a soft, friable, round, capsulated tumor, undergoing cystic and fatty change, are still further indications that the tumor was sarcomatous.

ADENOMA OF THE BREAST.

The President next presented slides illustrating an adenoma of the same locality. This neoplasm, he urged, is more difficult to diagnosticate, either clinically or by the microscope, mainly because it is hard to differentiate from fibroma. The case was as follows: E. L——, thirty-eight years of age, Irish, single, was admitted to St. Luke's Hospital, March 20th, 1880. Eighteen months previously she began to suffer from slight pains in the left breast, and shortly afterward detected a lump, of the size of a hickory nut, in the upper portion. The pain in the nodule was most marked at the menstrual epoch, and extended to the left shoulder and arm. On admission, the whole breast was enlarged and quite red, particularly on its under surface; and a special mass, hard to the feel, was detected at the centre : there was no discharge from the nipple. The patient had previously suffered from rheumatism and dyspepsia. The tumor was removed, and has not recurred since. But in another instance, where he had made the microscopical examinations, there had been a recurrence after six years' interval.

The hardness of adenoma was thought to be peculiar, *i. e.*, intermediate between sarcoma and fibroma. The outline is apt to be somewhat uneven, but the new formation is intimately connected with the glandular structure of the breast. Adenoma is also apt to occur earlier than sarcoma. Its section will look lobulated. Discharge from the nipple is not an important sign, as it may occur in sarcoma, adenoma, or fibroma. Its growth is slow. If, for any special reason, the tumor assumes an active change, perhaps as the result of an injury, the glands may become enlarged; but this does not always indicate that a metastatic deposit has taken place there.

Dr. Tauszky remarked that the President, in describing the difference between adenoma and carcinoma, did not say, that in carcinoma ducts were found, while in adenoma they were absent.

The President said there were two forms of tumor having an epithelial type, carcinoma and adenoma. Adenoma seemed to originate from the ducts—to be, in other words, an extension of and from the normal duct-structure, although the new gland-substance was not perforated centrally by ordinary ducts. Carcinoma, on the other hand, was a perverted growth which originated in the epithelium of the ducts, and spread from its points of origin through the medium of the lymphatics. It therefore followed the outline of those so-called lymph-spaces or channels which form networks throughout the connective tissues, and seemed to have ducts.

Dr. Tauszky added that he believed that sarcomatous formations originate in epithelium as well as in connective tissue.

ANOMALOUS LIVER.

By **Dr. R. Offenbach**, *Candidate.*—The patient, aged twenty-eight, died of typhoid fever at the Mt. Sinai Hospital, Feb. 17th, 1881. The viscera exhibited the usual lesions of the disease, showing changes in the ileum, spleen, and kidneys. The liver presented an anomaly which I have deemed worthy of presentation. It was of about the normal size and color, and weighed something over three (3) pounds. Further examination revealed that the lobes were transposed. The superior surface presented its usual convexity, but the larger lobe was situated upon the *left* side, and the smaller lobe upon the right. Its under surface showed the same anomalous subdivision.

The lobus quadratus, the lobulus spigelii, and lobus caudatus were situated in the left, which was much the larger lobe. The gall-bladder had its usual position between the two lobes, but was more prominent than common, and its position corresponded with a perpendicular line placed half-way between the anterior axillary border and the nipple line.

The ligaments were normal in number, but the suspensory ligament was placed somewhat to the left of its usual position. The fissures were likewise natural, but arranged to correspond to the already described subdivisions.

The veins emptied into the inferior vena cava as usual.

None of the other viscera presented any abnormality in structure and position. The case presents, therefore, the interesting anatomical fact of an organ, whose subdivisions were reversed, without the transposition of any other viscus that could serve to explain the anomaly.

ANEURISM OF THE TRANSVERSE PORTION OF THE ARCH OF THE AORTA.

By Dr. R. G. Wiener, *Candidate.*—G. C., male, æt. 43, musician, and married, had a good family history, had always been in excellent health, and denies having had venereal disease. In December, 1880, he complained of vagrant pains in the chest, and of flatulence and general dyspeptic symptoms. A careful physical examination of chest and abdomen proved negative. Urine normal. About the middle of February he became slightly hoarse; without any other change in his general condition.

On March 1st, 1881, his chest was again examined, with the following result: Lungs negative; heart's impulse forcible and somewhat heaving; apex-beat in its normal position; aortic sound accentuated; he was quite aphonic, and the left vocal cord, on forcible expiration, did not approximate to the right (paralysis of the adductors). There was some difference in the radial pulses, the left being fuller than the right, and the arterial tension in it was more marked. There was a slight irregularity of the pupils; the patient complained of vague gnawing pains in chest.

Diagnosis.—Aneurism of the transverse portion of the aortic arch, causing pressure upon the left recurrent laryngeal nerve.

On April 1st, his general condition was not good; he had lost flesh and appetite; the aphonia continued, and for the first time he complained of difficulty in swallowing, saying "it feels as if food was stopped before it reached the stomach." He heard water trickling down his throat. There was a very forcible and heaving pulsation of the aorta in the suprasternal notch, but no dulness, bruit, or pulsation of the chest-wall.

About April 15th, 1881, he raised some blood-streaked mucus, but had no decided hemorrhage: this was supposed to arise from congestion, due to pressure upon the trachea.

On April 26th, he retired at 11 P.M., feeling pretty comfortable, but about midnight was seized with a violent fit of coughing, which brought on a hemorrhage which proved fatal in a few moments.

Autopsy, 36 hours P.M.—Body fairly nourished, rigor mortis well marked, skin very pale. The pleural cavities contained about twelve ounces of clear serum; there were some old adhesions at the apex of the right lung. On section, the lung appeared healthy, but the primary and secondary bronchi were filled with frothy mucus and blood. An aneurism, involving the transverse portion of the arch of the aorta, was found pouching up and surrounding the trachea. The sac measured five and a half centimetres transversely, by six and a half centimetres longitudinally, and extended about five centimetres above the level of the aortic arch. The aneurism had eroded through the different layers of the trachea, and at a point three centimetres above its bifurcation, rupture had taken place. The trachea was the seat of marked chronic catarrhal changes, which had also involved the larynx, giving rise to a peculiar conformation of the epiglottis.

NOTE.—In Vol. I. of the Transactions, pages 106 to 187, over 100 cases of aneurism of the aorta are reported.

The Society then went into executive session.

STATED MEETING, SEPTEMBER 28TH, 1881.

DR. T. E. SATTERTHWAITE, *President, in the Chair.*

DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Double aneurism of the pulmonary artery. By DR. WILLIAM H. PORTER.
2. Laceration of the lower lobe of the right lung, without fracture of the ribs ....By DR. B. A. WATSON.
3. Subinvolution of the uterus, with retention of a portion of the placenta.....................By DR. B. A. WATSON.
4. Blighted ovum................By DR. H. J. GARRIGUES.

DR. WILLIAM H. PORTER presented, on behalf of a candidate, a

DOUBLE ANEURISM OF THE PULMONARY ARTERY.

NOTE.—In Vol. I. of the Transactions, pages 128 to 137, four cases of rupture and aneurism of the pulmonary artery are recorded.

DR. B. A. WATSON exhibited a specimen of

LACERATION OF THE LOWER LOBE OF THE RIGHT LUNG CAUSED BY VIOLENCE, WITHOUT FRACTURE OF THE RIBS; TERMINATING IN DEATH.

It was accompanied by the following history: Mrs. C——, a strong and healthy woman, aged thirty-three years, gave birth to a child one month before her death; five days after her confinement she was out of bed and attending to her household duties, which she continued to do uninterruptedly until about 6 P.M. September 7th, when she was kicked out of a chair by her husband, and then three or four times while lying on the floor. During the morning of September 8th, she was seen to leave her bed for a few minutes, and lean on the furniture of the room for support. She again arose about noon and prepared dinner for her husband and children, but returned immediately to her couch, on which she was found dead at 4 P.M. of the same day.

Post-mortem appearances.—The autopsy was made about twenty-four hours after death. Body well nourished; slight *rigor mortis;* blood oozed from the mouth and nostrils; a triangular-shaped contuso-lacerated wound over the centre of the right scapula, two and one-half inches in length by three and one-half inches in breadth; the skin over this space was abraded and rolled on itself, and the tissues beneath were contused and infiltrated with blood; there was also on one of the lower extremities a discoloration of a considerable portion of integument, which was evidently due to a bruise, but believed to be without pathological significance.

The scalp, cranial bones, investing membranes, and the brain substance were in a normal condition.

Thorax.—It was observed, when the sternum was raised, that the lungs appeared to fill the whole thoracic cavity, and did not contract as usual on the admission of air. There were no pleuritic adhesions. The right lung having been carefully raised from its cavity, the lower lobe was found irregularly congested, and presented a contused appearance; its substance at various points was partly disorganized and much infiltrated with blood; and on its posterior surface was a laceration measuring two and one-half inches in length. The right pleural cavity contained about two pints of fluid blood. The *ribs were not injured;* but on the interior aspect of the right thoracic wall were three or four ecchymotic spots, which, on further dissection, were found to be continuous with the same number of ecchymoses involving the soft tissues in the intercostal space between the seventh and eighth ribs. On the surface of the left lung, were four or five dark-colored spots, which, when laid open, were found much infiltrated with blood. The trachea and bronchi contained some fluid blood, and a few coagula remained adhering to the mucous membrane. The heart and its appendages were apparently healthy.

Abdomen.—Spleen and kidneys normal; liver slightly fatty, but not to such an extent as to be inconsistent with health.

The uterus was in a state of subinvolution and with what appeared to be a portion of a placenta adhering to the inner wall of its fundus. All the other organs were apparently healthy; but the blood here, as everywhere else in the body, was remarkably free from clots, and almost entirely fluid.

Remarks.—The general professional interest which attaches to this case arises from the laceration of a healthy lung by external violence without fracture of the ribs; but there are also many important medico-legal questions which will be sure to arise in connection with any judicial investigation.

Dr. Watson also presented a specimen of

SUBINVOLUTION OF THE UTERUS WITH A PORTION OF PLACENTA ADHERING TO THE INNER WALL OF ITS FUNDIS.

This specimen was removed about twenty-four hours after death, from a strong and healthy woman—multipara—whose death had been caused by violence about one month after confinement at full term. The uterus was in a state of subinvolution, and contained, still adhering to the inner wall of its fundus, what appeared to the unaided eye to be a portion of placenta. It was thought the specimen might be of some value to the profession on account of its comparative rarity; but it possessed for him a still greater interest, arising from the retained portion of placenta in connection with an almost complete absence of coagulability in the blood, which was observed in every part of the body during the post-mortem examination. Was not this patient suffering at the time of her death from a mild form of septicæmia; and did not the diminished coagulability of the blood depend on this morbid condition?

The specimens were referred to the Committee on Microscopy.

Dr. Ripley asked if the presence of such an amount of placenta in the uterus at that period after confinement was abnormal.

Dr. H. J. Garrigues said that he would answer the question decidedly in the affirmative. There should be simply an uneven surface, showing where the placenta had been attached; and not a mass which had a well-defined thickness, as seen in the specimen. Evidently a portion of the placenta had been torn off, while some remained attached to the fundus of the uterus.

Dr. Ripley stated that on several occasions, at about the same period after confinement, he had seen similar patches within the uterus, and no abnormal symptoms whatever had been developed. That was why he asked the question.

The President remarked that he had in several specimens found a simple roughness at the placental site between the second and the fourth weeks; but had not seen such a mass left behind as was present in Dr. Watson's specimen.

Dr. Ripley asserted that it was not uncommon for the placenta to remain after labor, and finally require the introduction of the hand to tear it off and remove it. In such cases, more or less of the placenta was usually left behind. Now, in some cases of apparently normal labor, a certain amount of placenta might remain, and he was quite sure that several times he had seen as large a mass as that in Dr. Watson's specimen a number of weeks after labor. That it was abnormal he did not dispute, and that it was not uncommon he believed.

Dr. Garrigues admitted that probably portions of placenta might be left when the hand was introduced into the uterus for its removal; but he thought the woman under such circumstances was always in more or less danger from hemorrhage, or septicæmia, etc. Such pieces might remain without giving rise to symptoms, but, as a rule, they should be removed at once.

The President asked if the remaining portion of the placenta was undergoing decomposition at the time of death.

Dr. Watson replied that decomposition evidently was taking place, though not rapidly, and there was an offensive discharge during life.

Dr. J. Lewis Smith thought that blood-poisoning was more to be feared than hemorrhage; and that was the determining reason why all portions of the placenta should be promptly removed.

Dr. Ripley maintained that the placenta is frequently retained after abortion without giving rise to septicæmia.

Dr. Carpenter suggested that the specimen illustrated retention of a portion of the placenta after labor at full term.

Dr. H. J. Garrigues presented a specimen of

ABORTIVE OVUM,

with the following history: A patient, who had been married three years, and was the mother of one child, two years old, came to him on the 6th of last August, wishing to know whether or not she was pregnant. She said that menstruation had been regular up to last January, but since that time she had had none. Four months afterward (in April) she was examined by a competent man, who told her that she was pregnant. Afterwards she was treated for catarrh of the uterus, and had observed herself that her abdomen did not increase in size.

On examination, the first thing Dr. Garrigues noticed was a dark, greenish-colored mucus coming from the vagina; and after the speculum was introduced, he satisfied himself that this material came from the uterus. Microscopical examination of the discharge did not reveal any histological formation. The uterus was no larger than is usual in cases of so-called chronic metritis; and especially there was no marked enlargement in the antero-posterior diameter, a most important point when the existence of pregnancy is in question.

Dr. Garrigues, therefore, told his patient that she might be two or three months advanced in pregnancy; probably not more than that, if at all; but he would not introduce a sound into the womb to determine positively. He did not think she was seven months pregnant, as indicated by the cessation of menstruation. He was willing to treat the cervix locally, and did so at once, and repeated the application at the end of three days, but on the evening of the fourth day she was taken with violent pain in the loins and hypogastric region, and when he examined her he found the os sufficiently open to admit the finger easily, and a round body was presenting through it. About one hour afterward, the husband brought him the specimen presented, which was, when he received it, a closed sac, with the exception of small holes that would admit a fine sound. The openings were so small that it would have been impossible for a body of any appreciable size to escape from within the sac. The mass was about the size of a goose egg, but flattened, and its outside was rough.

When it was cut open, the inside was found to be uniformly covered with a perfectly smooth membrane, which, under the microscope, proved to be structureless, that is, it had no epithelium. The specimen, however, had been in alcohol over night when examined, and it was possible that the epithelium had been destroyed; but more likely it was removed in some other manner. The entire inner surface of the uterus was studded with cysts of various sizes, from that of a small pea to that of a hickory nut. Some of these cysts were empty, while others contained a substance that corresponded with the greenish-black material seen exuding from the mouth of the uterus; this was doubtless disorganized blood. The cysts were composed of a thin membrane, about one-sixth of an inch thick, made up of simple coagulated fibrin, and were filled with coagulated blood. There was no trace whatever of a fœtus. The membrane which covered the entire inner surface of the uterus was the amnion. What had become of the chorion and the decidua he did not know. There was only a very moderate loss of blood at the time the mass was expelled, and the patient made a good recovery. Hemorrhages which destroy the ovum may take place in different situations: they can occur in the decidua, or between the decidua and chorion, or between the chorion and amnion, or finally they find their way into the interior of the ovum.

The Society then went into executive session.

STATED MEETING, OCTOBER 12TH, 1881.

DR. THOMAS E. SATTERTHWAITE, *President, in the Chair.*

DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Tonsillar calculi.................By DR. JOHN A. WYETH.
2. Intestinal obstruction due to stricture at the ileo-cæcal valve, with enormous hypertrophy of the ileum. By DR. E. C. WENDT.
3. Illustrations of aggravated lesions of typhoid fever. By DR. EDMUND C. WENDT.
4. Cerebro-spinal meningitis..........By DR. J. LEWIS SMITH.
5. Three cases of rupture of the small bowels. By DR. HENRY N. HEINEMAN.

DR. JOHN A. WYETH presented

A TONSILLAR CALCULUS,

which was interesting on account of its rarity rather than its surgical importance. The patient had suffered from tonsillitis for about six months, and, on examination, Dr. Wyeth discovered a black speck just behind one anterior pillar of the fauces, and, on touching it with a probe, found that it was hard. He enlarged the opening and removed the calculus presented, which was irregular in shape, and about three-eighths of an inch in diameter. The tonsillitis then disappeared rapidly.

DR. J. LEWIS SMITH said that he had met with one such case, and the inflammation continued until two calculi were removed.

DR. BRIDDON thought that calculi were very common in connection with chronic hypertrophy of the tonsils.

DR. WYETH asked whether he referred to calculi, or to the cheesy masses so commonly seen.

DR. BRIDDON replied that in the centre of the cheesy masses calculi were usually found.

The President referred to a case of obstinate chronic tonsillitis in which he had occassion to push one tonsil backward, after which he saw the yellow edge of a foreign body, which, when grasped and released from its bed, was found to be a small calculus that had been lodged in a crypt of the gland. Marked improvement followed this trifling operation.

Dr. Van Gieson thought that these concretions did not stand in the relation of cause and effect, that is, the condition of the tonsils produced the concretion, and not the concretion the tonsillitis. However uncommon they might be for the specialist, such bodies were not unfrequently seen by the general practitioner. He had not seen a calculus as large as the one presented by Dr. Wyeth, but had frequently found a hard nucleus in the centre of the cheesy masses removed from the tonsils.

Dr. J. Lewis Smith remarked that, in the case in which he had occasion to remove the two calculi referred to, they evidently kept up the inflammation. Although the tonsillitis produced the calculus in the beginning, the calculus, on the other hand, gave rise to secondary inflammation.

Note.—In addition to hypertrophy and induration, the tonsils are often affected with a peculiar blennorrhœa, in which the purulent secretion becomes inspissated, so as to form, chiefly, plugs, and even chalky concretions, formed of phosphate of lime.

PROLONGED INTESTINAL OBSTRUCTION DUE TO PROGRESSIVE STRICTURE AT THE ILEO-CÆCAL JUNCTION, FOLLOWING RECURRENT ATTACKS OF PERITONITIS—ENORMOUS HYPERTROPHY OF THE MUSCULAR COAT OF THE ILEUM.

Dr. E. C. Wendt exhibited a specimen which illustrated the above condition.

NTESTINES ILLUSTRATING AGGRAVATED LESIONS OF TYPHOID FEVER.

Dr. Wendt also presented several specimens of intestines removed from patients who died at the St. Francis Hospital.

They illustrated excessive ulceration and thickening of the mucous membrane as a result of typhoid fever. In two cases, death occurred in consequence of profuse intestinal hemorrhages, and in a third, it was the result of perforation. His principal object in presenting them was to show by direct comparison the enormous hypertrophy of the intestinal walls which existed in the first specimen. If we remember that the normal thickness of all the intestinal coats was commonly only one millimetre, then a thickness of one centimetre, as here exists in the ileum near its conjunction with the cæcum, must, indeed, be very remarkable. He had carefully examined the different coats of the intestine under consideration, and had found that the muscular coat alone measured from two to four millimetres.

Dr. Briddon asked Dr. Wendt if, in the case reported, any fecal tumor was discovered during life.

Dr. Wendt answered that the local physical signs were not well marked, although the rational symptoms all pointed to fecal impaction; still, some dulness was found in the ileo-cæcal region, but more was also discovered in the ascending, the transverse, and the descending colon.

Dr. Briddon inquired if tympanites was present in the umbilical region or in the neighborhood of the colon.

Dr. Wendt replied that at first the tympanites was general: there was an enormous distention of the entire abdomen, which even interfered with respiration, when he first saw the patient. Later, the tympanites changed its position; but, as a rule, it was most conspicuous on the right side.

Dr. Briddon remarked that when obstruction existed above the ileo-cæcal valve, tympanites was likely to be developed in the central portion of the abdomen; whereas, when the impediment was at the sigmoid flexure, flatus was most evident in the colon. He further observed that it was only in chronic cases that we were able to feel the coils of intestine contracting under the hand through the abdominal walls. He also thought that the thickening of the lower part of the ileum and the greatly increased size of the valvulæ conniventes might be the result of a previous distention of the gut. There must have been considerable dilatation of the intestine at some time, in which the mucous membrane had been involved as well as the other coats; and when that distention was relieved, the gut emptied itself and then contracted, leaving these folds very prominently marked. He also asked if laparo-ileotomy was thought of at any time during the progress of the case.

Dr. Wendt replied that the patient, when first seen, was in such a feeble condition that an operation was not to be thought of. He further added that the obstruction above the ileo-cæcal valve became evident only after the fecal impaction had been relieved; that there was then no indication for an operation, as there was only a moderate amount of distention of the intestine.

Dr. Briddon maintained that he was unable to understand how any condition could preclude the performance of laparo-ileotomy in a case of impaction due to stricture, and which refused to yield to other treatment. He also suggested that the hypertrophy of the valvulæ conniventes might be due, in part, to a chronic catarrhal inflammation of the mucous membrane, such as is usually met with in similar cases.

Dr. Wyeth thought that the most singular feature of Dr. Wendt's specimen was the hypertrophy of the valvulæ conniventes. Why this portion of the absorbent system should be involved, he was not able to comprehend. He further averred that the valvulæ conniventes could not be obliterated by any amount of distention of the intestine.

The President said that, in seeking for an explanation of the marked prominence of the valvulæ conniventes, it would be desirable to know whether or not the intestine was in a state of contraction. If it had been in a state of intense contraction, it was easy to understand how the mucous surface might be thrown into large folds.

Dr. Wendt rejoined that the intestine at the autopsy was moderately distended with fluid and gas; and he further asserted that the hypertrophy of the muscular coat of the intestine extended upward for about three yards, but gradually diminished in amplitude from the ileo-cæcal valve.

Dr. Wyeth suggested that the increased size of the valvulæ conniventes might be secondary to the hypertrophy of the muscular coat.

The President remarked that it was easy to believe that it might be secondary : he regarded it as very much like the condition of the mucous membrane of the bladder when that viscus is hypertrophied in all its coats. When such a bladder is in a state of contraction, the redundant mucous membrane presents an uneven surface, filling in the cavities between the muscle-bundles.

Dr. Heineman thought that Dr. Wendt's explanation was the best yet offered, because there was uniform thickening of all the coats of the intestine. Mere distention, even if existing for some time, would not be likely to result, by subsequent contraction only, in such a hypertrophy of the mucous membrane, and produce so marked a prominence of the valvulæ conniventes. He believed that the portion of the intestine in question was evidently still dilated, as could be easily proven by placing its cut surfaces in contact with each other, and thus restoring the lumen. We could not judge of the narrowness of the stricture from its present condition. It was well-known that intestines, unless well preserved, will soften very quickly after autopsy; so that a stricture, which at the post-mortem would hardly admit the tip of the little finger, would soon so increase in size as readily to admit the thumb. Again, with reference to the suggestion made by Dr. Briddon, that chronic catarrhal inflammation might account, in part, for the hypertrophy of the valvulæ conniventes, he thought that such a result would not occur from this alone. He had never seen so marked a thickening as existed in the specimen presented, in any case of chronic catarrhal inflammation involving such an extent of the small intestine. In this case, the hypertrophy was in the lower portion of the small intestines, the duodenum and jejunum not being involved. The obstruction itself was probably the cause of the thickening, and was presumably one which had acted continuously for some time.

The President was fully convinced there was great hypertrophy of all the coats of the intestine, and that it was compensatory in character, produced by the vigorous efforts Nature had made to force the intestinal contents through the stricture. Though the bowel might have been found partly filled with its normal contents, and the actual lumen of the specimen noticed to be greater than normal, yet it seemed, from the great thickness of the cut walls, that some contraction had taken place, so that very great dilatation must have previously been present. Such a tube could not contract down to the normal calibre, owing to the great thickening of the muscular and connective tissue elements in its coats. It was in the same condition as a dilated and hypertrophied bladder which had contracted to its utmost extent, and yet far from sufficiently to expel all its contents. The marked prominence of the valvulæ conniventes and their abnormal occurrence in this situation might be partly due to the increased nutrition of the adjacent tissues, and somewhat to longitudinal contraction of the gut.

DR. WENDT remarked that, no matter how much the intestine was stretched in this case, the valvulæ conniventes could not be obliterated.

DR. BRIDDON said that he did not wish to convey the idea that the prominence of the valvulæ conniventes was necessarily the result of contraction only, in the previously dilated gut; but that the bowel had been greatly distended he did not think there was any reasonable doubt: in fact, the existence of excessive tympanites during life sustained that view.

DR. WYETH remarked that it was stated in the books that the valvulæ conniventes did not extend all the way around the intestine, whereas, in the specimen presented, they encircled the bowel almost completely.*

CEREBRO-SPINAL MENINGITIS.

DR. J. LEWIS SMITH presented a brain from an adult, with the following history: A primiparous woman was confined in one of the maternity wards of the New York Infant Asylum, on August 6th. The labor was normal, and neither accident nor complication occurred after confinement; in fact, she was apparently fully convalescent, when, on the 29th of August, she complained of severe pain in the left hip, and also in the head. Little attention was paid to these complaints until the following day, when it was found that the headache was intense, and that she was at times delirious; but she had none of the vomiting which is so common in the beginning of meningitis. On the 31st of August, the vaginal temperature was 102.5° F., the pulse 120, without marked acceleration of respiration. She screamed often, but usually lay in a doze; the muscles of the nucha were rigid, and the head was retracted. On the first of September, strabismus was observed, and there was also paralysis of the right side of the face, the mouth being drawn to the left.

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* Dr. J. C. Peters agreed with Drs. Wendt and Heineman that it was a case of hypertrophy of all the coats of the bowel, with dilatation.

Dr. Smith only saw the patient about twenty-four hours before death. A diagnosis had already been made of either apoplexy or cerebro-spinal meningitis; but the symptoms pointed more strongly to the latter.

About twelve or eighteen hours before death, her vaginal temperature was 104.5° F. She died after an illness of three days, and in a state of coma.

At the *autopsy*, a purulent exudation, with a moderate amount of fibrin, was found in the meshes of the pia mater, along the base of the brain, extending forward from the pons Varolii, as far as the fissures of Sylvius, and along these fissures. The exudation was not great, but it obstructed to a certain extent the view of the brain, especially along the course of the vessels. Upon the left side of the brain, the exudation extended over the convex surface of the posterior half of the hemisphere to the vertex: but it was not thick at any point. Almost no serous exudation escaped when the calvarium was removed. The brain was placed in alcohol, and after it had hardened a few days, it was opened, and there was found an evident softening of the walls of both ventricles, most of which was cadaveric. From the history of the case, and the lesions found at the autopsy, Dr. Smith had no doubt that the case was one of epidemic cerebro-spinal meningitis. He then referred to an epidemic of this disease which occurred in this city in 1873, commencing among the horses of the large car-stables before it appeared among the people. At that time it occurred in all parts of the city, but more especially among the tenement-house population, where it was very fatal. In that epidemic he observed between forty and fifty cases.

About a year ago, the disease began to appear in the upper part of the city, and he has now seen twenty-one other cases of what he regards as undoubted epidemic cerebro-spinal meningitis. During this epidemic, the meningitis had been most prevalent and fatal in the tenement-house population, as it was in 1873. With reference to the etiology of the disease, there were some cases which occurred under circumstances which were especially interesting. We seldom meet with multiple cases, because the disease is not contagious, and does not often spread from one to another. During the present epidemic, Dr. Smith had, however, seen three cases in one family, and he also learned that a workman employed upon the same premises had died of the disease, thus making four cases in one family—if the first was a genuine case. These people were engaged in procuring heads of cattle and removing the skin, which was utilized, and the fleshy portions were sold to manufacturers of bologna sausage and head-cheese. They had, when he made the inquiry, four hundred and fifty of these heads in their building, which was about the usual number. The building was wooden, two stories high, with a frontage of about thirty feet, and the usual depth of a city lot. As a natural consequence, more or less decomposing animal matter lay about, and the family lived directly over the shop. It would seem that the near presence of this decaying substance afforded some explanation of the fact that multiple cases had occurred; whereas all the other cases which he had observed in this late epidemic happened singly, as is the rule.

Therefore, from observations made in the recent epidemic, as well in that of 1873, Dr. Smith believed that, when multiple cases occur, we are ordinarily able to trace them to exposure, to foul air, or to other anti-hygienic conditions. In the epidemic of 1873 he attended only one family, in which three cases occurred. They were all of a very severe type, and the apparent cause was the dirty state of the apartments and consequent impure air. The mother, exhausted by her incessant attendance upon her two children, had allowed their soiled bed-clothes to accumulate till the death of one of them. Fatigued and dispirited, she spent a considerable part of a day in washing these clothes, and she had hardly finished her task when the ominous headache began, and she, too, died after a short sickness. The severely afflicted Brown family, whose cases were reported by Dr. Schwalb in 1873, afforded another illustration of the effect of foul air as a cause of cerebro-spinal meningitis, at a time when unknown atmospheric conditions were perhaps favorable for its occurrence.

But several observations made in both epidemics show that there is an occasional exciting cause of a very different nature, to wit: some undue mental excitement. Many who now fall victims during an epidemic would apparently escape if they led a more quiet and regular life, free from care and excitement. He had elsewhere reported the case of a young woman, at the head of one of the departments of a large Broadway store, who was anxious, and overtaxed at the annual reopening, and immediately began to suffer from the disease; and another of a girl who having failed in her examinations at one of the public schools, went home excited and crying, applied herself unintermittingly to her books, and before bed-time had a violent headache, which ushered in a severe form of the malady. Indeed, so frequently in his practice in both epidemics had children who were subjected to the severe discipline of the public schools been affected, that he believed when cerebro-spinal meningitis is prevailing, the studies should be lighter, and the parents should not impose irksome tasks at home. In the recent epidemic, a man of thirty-two years, very industrious and of active mind, the chief partner in a large and perplexing business, had been convalescent for two months from typhoid fever. When his health was nearly established, he returned to his business, which, on account of his absence, now demanded his attention to the utmost of his ability; and he applied himself beyond his strength to the duties of the firm, so as to feel exhausted every night. This state of affairs did not continue long, when the disease attacked him, and ended fatally in thirteen days.

During the recent epidemic, he had seen and preserved records of twenty-one cases, chiefly in his own practice, but some of them were visited in consultation.

Their ages were as follows:

Under one year, 1 (aged eleven months); from one to three years, 3; from three to five years, 5; from five to ten years, 6;

from ten to fifteen years, 2; over fifteen years, 4 (aged nineteen, twenty-one, twenty-six, and thirty-two years). Thirteen recovered; eight died.

The following table gives the time, in the order of their occurrence, during which the thirteen who recovered remained in bed, unable to assume the sitting posture, even for a short time, except with much exertion and an increase of suffering.

1st case, five weeks; 2d, three months; 3d, ten weeks; 4th, three weeks; 5th, four weeks; 6th, sixteen weeks; 7th, five and a half months (head retracted four months); 8th, seven weeks (head retracted most of the time); 9th, about six weeks; 10th, ——; 11th, two months; 12th, ——; 13th, two months.

The active period of the inflammation in these cases appeared to be included within the first three weeks, the inflammatory symptoms being more marked, and the temperature at its maximum during this period. The febrile movement, as is usual in this disease, varied in different hours of the same day; but in only one of those who recovered was a temperature of about 105° recorded; and that was in the latter part of the day in the third week. The ordinary highest elevation was 103° to 104°, but it would probably have sometimes been higher, except for the constant application of ice to the head and nucha.

In those cases noted in the table in which the patients were confined for months in bed, the emaciation and weakness were usually extreme, and the final result was for weeks uncertain. Some of them (children) would, without doubt, have perished in this state of helplessness, except for the perseverance and devotion of their mothers. The one who lay five and a half months in bed with rigidity of the muscles of the nucha, and pain whenever moved, afforded an instructive example in point, for nearly the whole of that time.

The following *résumé* gives the duration of the fatal cases: 1st case; twenty-six days; 2d, thirteen days; 3d, five days; 4th, six weeks; 5th, eighteen weeks; 6th, eight days; 7th, three days; 8th, —— days.

The death of most of these patients occurred while in a state of coma, preceded by intense headache, convulsions, or delirium. But the one who lived eighteen weeks died apparently from bed-sores, which possibly might have been prevented had the mother been sufficiently attentive, and removed the bed-clothes immediately whenever soiled. Three very large sores, located over the sacrum and each hip, extended nearly or quite down to the bones; and, although appetite had begun to return, and the child became conscious from a state of semi-coma, its recovery was impossible, in its very emaciated condition, with so abundant a suppuration.

All who have witnessed an epidemic of cerebro-spinal meningitis are aware of the disastrous results of the intercurrent eye and ear affections which now and then supervene. These organs are so damaged that their functions are, as a rule, totally lost and forever. In one of the twenty-one cases, however, a boy aged three years and seven months, who was two months in bed, hearing appeared to be entirely lost in the beginning of convalescence; he now evidently hears when spoken to loudly. In one other patient, only, were the ears involved, and the loss of hearing has been complete. There was apparently no injury of the drum, no external discharge, and no symptom except loss of hearing, to direct attention to the ear. If earache had been present, it was not distinguished from the neuralgic pains which are so common in this disease. Deafness often arises from deep-seated causes, and is largely dependent upon inflammatory changes in the lining membrane of the vestibule and semicircular canals.

In one case only was the eye involved—a girl of thirteen years, who died about the sixth week. When she had been sick nearly one month, she had violent, deep-seated inflammation of one eye, which soon completely destroyed the organ. The other eye escaped.

The results of treatment in the recent epidemic was somewhat more favorable than in 1873, when about fifty per cent perished. Thirteen out of twenty-one recovered. The treatment consisted in the free use of bromide of potassium and ergot in the beginning, ice to the head and nucha, and the moderate and cautious employment of opiates to relieve pain and to procure rest. It is in the first two or three weeks that the danger is greatest, and medicinal treatment is of most importance. Afterward, the chief reliance must be on good nursing, and the use of nutritious but unstimulating diet, with a little medicine, as occasion may require.

Dr. J. C. Peters thought that cerebro-spinal meningitis rarely occurred where all the sanitary conditions were really good. Much more careful examinations were required than were usually made.

Dr. Carpenter referred to an epidemic through which he passed, and in which the disease attacked single patients among the best families over an area of territory two miles in diameter, and in not a single instance could it be traced to defective drainage or filth.

Dr. Van Gieson spoke of an epidemic of the disease which occurred at Long Branch about twenty years ago, and at that time it was thought that the disease was transported to the city of New York; but the origin of no case was then ascribed to filth. However, he supposed it to be tolerably well established that cerebro-spinal meningitis is essentially a filth disease.

Dr. Peters remarked that the sanitary condition of Long Branch was always sufficiently and even notoriously bad, while the premises of many of the so-called "best" families would not bear close inspection.

Dr. Van Gieson asked if facial paralysis was not a rare symptom in cerebro-spinal meningitis.

Dr. Smith believed it was. It occurred in only one of the twenty-one cases which he had seen during the past year, and that recovered.

Dr. Van Gieson stated that, with a tolerably extensive experience in this disease, he had not noticed in any case the existence of facial paralysis.

Dr. Garrigues thought that the case reported by Dr. Smith was a mixed one; that the paralysis of the right side of the face must be attributed to the changes in the interior of the cerebrum. It seemed to be a case of cerebro-spinal meningitis complicated with encephalitis. Probably the reason why Dr. Van Gieson had not seen facial paralysis was because his cases had been those of simple cerebro-spinal meningitis.

Dr. Smith believed that it was a fact that softening of portions of the brain and spinal cord was not uncommon in connection with cerebro-spinal meningitis. Softening of some portion of the spinal cord has been observed, and Klebs describes œdema of the medullary substance of the brain and loosening of the nerve elements, and suggests that they may explain the extensive motor disturbances which have been observed in some cases.

Dr. Carpenter thought it was rare to find localized softening.

Note.—See Bulletin, pages 148 to 152. Fatigue, cold, and certain insanitary states, like dampness, filth, and an atmosphere loaded with putrid emanations, have been placed among the exciting causes. Hirsch, Stokes, and Simon have collected many facts which suggest the possibility of the active cause of the disease being portable in some way. This possibility, notwithstanding the apparent formidable array of facts to the contrary, is not to be lightly dealt with. It is obvious that the infectiousness is not at all like that of small-pox, scarlet, or typhus fever; but it may possess an occult infectiousness like that of typhoid fever. Diseased grain has also been accused, and mouldy bread. Rabbits fed on these always exhibit more or less congestion of the spinal cord, and some inflammatory changes, especially in the eyes. Septic, and internal rheumatic inflammation seem strangely combined in this disorder.

RUPTURE OF THE INTESTINE.

Dr. Heineman presented three specimens of rupture of the intestine, the results of different kinds of violence.

The *first* was from a boy five years of age, who, on the evening of July 21st, was last seen playing upon a wagon. About an hour afterward, the other boys came and told his mother that he had been injured, and when she reached the child, she found him unable to speak and in great pain. He was brought to the Roosevelt Hospital on the evening of the 21st, and died on the following day at eleven o'clock.

At the *autopsy*, bloody serum was found in the peritoneal cavity, and there were signs of peritonitis. There was a rupture of the duodenum on its posterior surface, where it lies against the spinal column, involving about four-fifths of its circumference. There were no external marks of violence upon the body, except a very slight scratch on the back; but there was a slight discoloration beneath the peritoneum, and, on further examination, it was discovered that the rectus abdominis muscle had been ruptured, with an effusion of blood into its tissue. There was enlargement of Peyer's patches, and also of the solitary follicles and mesenteric glands—a condition not unusual in connection with irritation in the peritoneal cavity.

The *second* specimen was from a man who had been kicked by a horse on September 3d. He vomited immediately afterward, and had intense abdominal pain. He entered Roosevelt Hospital on September 8th, and died on the following day.

At the *autopsy*, a rupture of the ileum was found. The patient had lived with this injury six days after the accident. Another peculiarity and an interesting point in connection with the rupture was this: It was noticed by Dr. Delafield at the autopsy that the opening in the intestine looked like one made by a phthisical ulcer, and when the specimen was fresh, it could not be distinguished from one. In this respect it was noteworthy from a medico-legal point of view. If there had been other ulcers in the intestine, and the patient had been kicked by a man instead of a horse, it might have been difficult to decide whether the aperture in the intestine was a rupture from violence, or due to phthisical ulceration.

The *third* specimen was from a young man who fell thirty o forty feet. There was intense pain, and a large area of dulness over the peritoneal surface.

At the *autopsy*, a large rupture of the duodenum was found, and bowel-contents had escaped into the peritoneal cavity. There was general peritonitis, swollen mesenteric glands, and enlarged Peyer's patches. The three cases were interesting from the fact that they had all occurred within the last three months.

Dr. Wyeth asked if a diagnosis of rupture of the intestine was made in the hospital in the second case.

Dr. Heineman replied that it was, and that the patient was treated for peritonitis.

Dr. Van Gieson inquired whether the abdominal cavity contained food or fæces in the first case.

Dr. Heineman answered that partially digested food was found in the peritoneal cavity.

Dr. Van Gieson thought that rupture would be less likely to occur when the intestine was empty than when it was filled with partially digested food.

Note.—In Vol. II. of the Transactions, pages 12 to 14, ten cases of rupture of the ileum are reported.

The Society then went into executive session.

UofM

STATED MEETING, OCTOBER 26TH, 1881.

Dr. Thos. E. Satterthwaite, *President, in the Chair.*

Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Gunshot wound of the abdomen. Question of abdominal section....................By Dr. George F. Shrady.
2. Discussion........By Drs. Howe, Briddon, and Shrady.
3. Caries of the tarsus, amputation..By Dr. John A. Wyeth.
4. Caries of the petrous portion of the temporal bone, following chronic ear disease.......By Dr. Henry N. Heineman.
5. The shaven-beard appearance of Peyer's patches. By Dr. Henry N. Heineman.
6. Compound fracture of the skull...By Dr. Wm. H. Porter.
7. Cancer of the stomach...........By Dr. Wm. H. Porter.
8. Discussion. By Drs. Briddon, Shrady, and the President.
9. Complete obliteration of one kidney; unilateral nephrolithiasis..................By Dr. Edmund C. Wendt.
10. Discussion by Drs. Ripley, Briddon, Heineman, Wendt, and the President.
11. Leucocythæmia, with disease of the spleen, liver and lymphatic glands; death from retro-peritoneal hemorrhage. By the President, Dr. T. E. Satterthwaite.
12. Pistol-shot wound of the thigh, with perforation of the femoral artery.....By the President, Dr. T. E. Satterthwaite.

GUNSHOT WOUND OF THE ABDOMEN—QUESTION OF ABDOMINAL SECTION.

Dr. George F. Shrady presented specimens consisting of a portion of the liver and a section of the abdominal aorta, from a young woman who committed suicide by a pistol-shot in the abdomen. She was admitted to the Presbyterian Hospital at noon, October 20th, an hour after the injury, in a state of profound collapse. The point of entrance of the ball was in the left side, over the seventh costal cartilage, three and three-fourth inches below the nipple, and two and one-half inches from the median line. Dr. Simpson, the house surgeon, believing that the missile had entered one or other of the cavities, did not make any exploration of the wound.

When Dr. Shrady saw the patient, at 3 P.M., she was still suffering from shock: there were also excessive pallor of the countenance, a small and tremulous pulse, heavy sighing respiration, coldness of the extremities, intense thirst, jactitation, and other symptoms of internal hemorrhage. The wound was small, rounded, corresponding in size with one made by a ball of about twenty-two calibre, and was sealed by coagulated bloody serum. The neighboring integument was blackened by powder-grains. An inspection only was made of the wound and its surroundings in order, if possible, to ascertain the character and the extent of the injuries inflicted; for the persistence of the shock, with the accompanying symptoms, made it clear there was internal hemorrhage; that the seat of the same was below the diaphragm: and for these obvious reasons no attempt was made to explore the track of the missile. There were no evidences of a wound of the lung by a possible upward direction of the bullet, nor was there any increased area of dulness over the heart; and it was impossible to ascertain the position of the weapon when it was fired, but the natural assumption was that the ball took a general direction from before backward and from right to left.

DIAGNOSIS OF SUBPERITONEAL HEMORRHAGE.

The wound being over the region of the left lobe of the liver, an injury of that organ was suspected; but the occurrence of other symptoms pointing to extensive hemorrhage from another locality ruled out that viscus as a prime sufferer in the complication. There were no symptoms of a wound of the stomach, which was explainable upon the supposition that that organ was empty and collapsed at the time the shot was fired. Percussion over the abdomen gave normal resonance, except in the lumbar regions, where flatness existed, accompanied, especially on the right side, by an irregular tumor, the external presenting edge of which was reasonably firm and quite well defined. These physical signs were associated with progressive and tearing pains, situated deeply in the abdomen, and gave rise to the diagnosis, which was subsequently confirmed by the autopsy, of a dissecting subperitoneal hemorrhage, due to injury of one or more of the large vessels in the subperitoneal region. Assuming the course of the ball to be backward, downward, and outward, the left renal artery was believed to be the probable source of the bleeding.

The patient died in collapse twelve hours after the injury.

Necropsy, thirteen hours after death, by Dr. W. H. Porter, Curator of the Hospital: Body well nourished and abundantly supplied with adipose tissue. Rigor mortis fairly marked. A small, blackish perforation (bullet wound) in the skin of the left breast, two and three-quarter inches from the median line, three and three-quarter inches below the line of the nipple. Slight hypostatic congestion of the dependent portion of the trunk.

Thoracic cavity.—The pericardial sac contained half an ounce of clear serous fluid, slightly tinged with blood. The heart was nearly covered in by a thin layer of adipose tissue; weight, nine ounces, but otherwise normal in all respects.

The left pleural cavity contained two ounces of bloody serum. The left lung was perfectly free from pleuritic adhesions; weight, eleven ounces. In the right pleural cavity there was half an ounce of bloody serum; and a band of old pleuritic adhesions existed at the posterior border of the lung, at the fourth intercostal space, just external to the angle of the ribs: otherwise the lung was free; weight, eleven ounces. Both lungs were quite dry, but when cut into their central portions looked bright-red, as if deeply congested.

Abdominal cavity.—There were seventeen ounces of bloody serum and one of coagulum in the peritoneal sac upon the right side. The coagulated blood lay on the free surface of the peritoneum, between the ascending colon and the root of the mesentery. Upon turning the small intestines to the right and out of the peritoneal cavity, a large subperitoneal extravasation was brought clearly into view, lying between the descending colon and the root of the mesentery, appearing to extend from the splenic flexure of the colon downward and to the right, and apparently terminating at the superior border of the right broad ligament: but later on it was traced downward and outward through the great sacro-sciatic foramen. All the post-peritoneal and perinephritic tissues were filled with blood-clots and serum, and the kidneys were fairly imbedded in a mass of coagulum. The *liver* was very pale, as if bloodless, but otherwise normal, excepting the hole made by the ball.

The general course of the ball had been from before backward and to the right; it had passed through the centre of the seventh intercostal cartilage, traversed the pleural cavity, the diaphragm, the cavity of the abdomen, and had crashed through the liver, one inch from its longitudinal fissure, grazing the lesser curvature of the stomach, and slightly wounding its muscular coat; it then cleared the superior border of the pancreas, splenic artery, and posterior surface of the duodenum, and perforated the anterior wall of the abdominal aorta a little to the right of the median line, and an inch below the origin of the right renal artery. The point of exit of the bullet from the aorta was on the right posterior aspect of the vessel: then it had evidently struck the body of the second lumbar vertebra, and been deflected from its course in a direction downward and outward into the substance of the right psoas muscle. Its point of lodgment was three inches below the wound in the artery and two and one-half inches to the right of the median line.

Quite naturally, in view of recent discussions about the propriety of performing abdominal section in such cases, this measure was thought of when the patient was first seen. For many reasons the expediency of such an operation was not entertained. There was no doubt that internal hemorrhage was taking place, and that the patient was dying in consequence of it; still it was quite plain that she was already beyond the possibility of aid by any operation. Although the location of the clot was closely diagnosticated before death, and the source of the hemorrhage was discovered at the post-mortem to be scarcely one inch from the supposed locality of the injured artery, yet any attempt at tying the vessel actually wounded would have been worse than useless, even if reaction had been previously established.

Dr. Shrady remarked that the case exemplified in quite a striking manner the usual contra-indications for the operation of abdominal section in gunshot wounds of the abdomen. These were briefly alluded to as persistence and profundity of shock, difficulties of diagnosis as to the organ or organs wounded, the degree and source of the hemorrhage, the precise track of the missile, and also the danger of adding to existing evils by any attempts to explore the wound.

Dr. Briddon said that until within the last few years the large serous cavities had justly been regarded as closed, or enshrined sacs, so far as surgical interference with them was concerned. It was to the results obtained under antiseptic treatment, doubtless, that the heroic measures could be traced which were now regarded as justifiable and proper in some wounds of these cavities. It was one thing to picture an ideal case with the consequences all standing out in bold relief, the symptoms clearly defined, and everything represented in beautiful outline, such as is often depicted in the various text-books. Such an assemblage of conditions might warrant the inauguration of a line of treatment which an autopsy would sustain: but his impression was that in the large majority of cases, when we come face to face with realities, the situation would be different: we should find no such accommodating association of facts to guide us, but many things obscure and doubtful, provokingly so in most cases. The patient was often in profound collapse, and how much of it was due to impressions made on the great system of nerves that preside over the functions of the viscera, and how much more was referable to hemorrhage, it was impossible to decide. With little else to guide him, he would be a bold surgeon indeed who would advise and perform a section that might, by adding to the shock already existing, check the reaction which was struggling for existence: a section which also might expose to view a condition of things far different from that supposed to exist, afford unpleasant evidence of the fallibility of human judgment, and lay the operator open to the charge of meddling with conditions of the gravity of which he had no previous adequate idea. Some years ago, he had heard a member of the Society, now dead, but then eminent in the profession, declare that he would hold the man who should stand idly by the bedside of a woman dying from hemorrhage, due to rupture of a Fallopian tube, from gestation occurring within that canal, and who would also refuse to open the abdominal cavity, and secure the bleeding vessel, guilty of manslaughter. The terms were strong, and he (Dr. Briddon) thought they could not be sustained: for, often when the surgeon saw such a case, the hemorrhage had ceased from natural processes; and the collapse was so great that the additional shock induced by such an operation might well be regarded as extra-dangerous: besides, there were well authenticated cases where recovery had followed even so grave an accident as this. He could conceive cases that might demand operative interference to stay a hemorrhage going on immediately after the reception of a wound: and he would also advise abdominal section in some wounds and diseases of the intestine Of course, in wounds of protruded bowels, the indications were plain enough—to suture the intestine and return it to the cavity; and in those cases in which we have evidence of fecal extravasation within the abdomen, he had no doubt the proper course, to pursue, was to open the cavity, and either suture and replace the gut, or secure it to the abdominal wall, and aim for an artificial anus. He was also familiar with a condition met with when a wounded patient was coming out of collapse: reaction was being established, and the abdomen was becoming distended with the products of inflammation due to unrecognized extravasation: under such circumstances, he thought it would be proper to make an abdominal section, seek and close the intestinal wound, wash out the cavity with antiseptics, and introduce either glass or rubber tubes to insure drainage. The proper time for bold operations was either when hemorrhage was going on; or at a later period, when we had reason to fear that peritonitis, due to extravasation, was either present or impending.

PROBING WOUNDS OF CAVITIES.

Dr. Joseph W. Howe asked Dr. Shrady what objection he had to passing a probe through a wound into the abdominal cavity.

Dr. Shrady answered that, on general principles, it was bad practice, and nothing could be gained by the procedure.

Dr. Howe asked, "Why bad practice?"

Dr. Shrady replied: "Because it may add to already existing evils."

Dr. Howe remarked, that was only a supposition. He was unable to see what harm a Nelaton probe could do following in the tract of a greasy bullet through the abdominal walls into the cavity, if it was passed by gentle hands. Were he called to a case of gunshot wound, no matter where it was, provided the patient was alive and not in profound collape, he would introduce a probe, and endeavor to find the track of the bullet, without twisting the instrument about, or searching in any rough or forcible way, in any part or organ. If the ball was allowed to remain, it certainly (?) would cause harm and perhaps greater damage than would be done by the probe, if carefully used.

If the bullet could be discovered and located, he did not see why the surgeon should not enlarge the opening, if necessary, and remove it. Besides, the probe might give some indication as to whether or not the intestines were wounded; for if fecal matter had escaped into the abdominal cavity, the instrument might come in contact with and bring some of it out, and thus afford a good indication for an operation.

Dr. Howe also thought a surgeon might be justified in making an abdominal section in cases of wounds of the gall-bladder. If left unaided, they were certain to terminate fatally; while it was possible that a patient's life might be saved by opening the abdomen, and either closing the wound in the gall-bladder, or bringing the edges of the opening into the lips of the abdominal incision, and securing them with sutures.

He believed that the same course was justifiable in connection with wounds of the kidney, and also of the bladder, as well as of wounds of the intestines. The mere fact that a case was found post-mortem which could not have been benefited by an operation, did not prove anything against proper probing.

Dr. Briddon's opinion was that any and every proposition to probe the abdominal cavity, after gunshot wounds, had been vetoed by the profession: that was settled long ago, and the condemnation of such a proceeding was most emphatic: it could do harm by increasing extravasation when an intestine was wounded, also by disturbing clots in vessels that had given rise to hemorrhage; and was, in short, a most fallacious and unreliable guide in every respect. He could conceive of no conditions that would warrant its use. With reference to wounds of the gall-bladder or its ducts, he did not regard them as necessarily fatal.

Dr. Howe said that there was no such general rule; there was probing and probing; but gentle and skilled probing had not been objected to by any one.

Dr. Shrady believed it to be a good rule not to probe large cavities, even those into which the surgeon was sure a bullet had entered; for, by probing, he was more apt to do harm than good. If, for example, an attempt was made to probe a wound of the abdominal cavity, there would be much difficulty and uncertainty in following the track made by the ball; and the chances were fair that some vessel would be pushed, or wounded, some clot disturbed, or some important organ injured; and in the end the locality of the ball would remain undetermined. He was glad that he had not attempted to introduce a probe in the case above reported, because it certainly would have entered the liver and doubtless increased the hemorrhage. He was satisfied that internal bleeding was then taking place, and also that the bullet had occasioned it; but he believed it would be impossible to locate the exact site of the missile, or accurately name the wounded vessel: he was therefore forced to leave the case to Nature. Furthermore, he believed that the autopsy vindicated the plan of management he had adopted.

Dr. Howe regarded Dr. Shrady's case as an exception to the rule, because the course of the missile and what was killing the patient were known. He wished his remarks to be applied to cases in which the surgeon was ignorant of the track of the bullet; and in such cases he believed, if the patient was not in a state of profound collapse, the surgeon would be justified in following the course of the ball with a probe until he became satisfied that he would be unable to find where it had lodged.

Dr. Shrady thought that the great difficulties in such cases were, in making a positive diagnosis, and in obviating the condition of shock which would render any operation admissible. Under such circumstances the benefit of the doubt should be given to the patient rather than to the surgeon.

The President said that his experience had been confined to penetrating wounds of the thorax, but so far as it had extended, it had led him to favor sealing them hermetically with collodion. He had seen four cases while an interne in the New York Hospital: in three, the openings were kept patent, and all the patients died with empyema and pneumonia. In the fourth case, the wound was tightly sealed with collodion, and although empyema and pneumonia supervened, the complications were less severe than in the other cases, and the patient recovered.

Dr. Briddon had seen five or six cases in which there had been penetrating wounds of the chest-wall, in some of which the viscera were involved, and they had entirely recovered without any local treatment whatever. The balls were small, and the wounds did not require even the application of collodion, for they were sealed effectually by natural processes.

Dr. Howe said that such experience could not be used as an argument against probing the abdomen; for, in the first place there was no irritating or poisonous substance, like fæces or bile or urine, to be poured out; there was nothing except blood to be extravasated, and it was well known that patients with bullet-wounds of the lungs frequently recovered without special treatment. It was also a well-proven fact that bullet-wounds of the intestines, gall-bladder, kidneys, etc., were almost always fatal; the patient having next to no chance whatever of recovery. Why should we not give the patient the one chance?

CARIES OF THE TARSUS—AMPUTATION AT THE TIBIO-TARSAL ARTICULATION.

Dr. John A. Wyeth presented a foot removed from a Confederate soldier on account of a gun-shot wound received nineteen years previously, in April, 1862, at the battle of Shiloh. It happened on the first day of that battle while in the act of running toward the enemy. The ball entered on the fibular side of the foot, traversing the calcaneo-cuboid articulation and that between the astragalus and the scaphoid; making its exit on the tibial side of the foot. After suppurating, and discharging some pieces of bone, the wound closed up, and seemingly healed, about seven months after the injury. For six years the foot was perfectly well and useful, when, without any known provocation, it became inflamed, painful, and suppurating. This condition continued with varied intervals of improvement and relapse during the years included between 1869 and September, 1880, when he came under Dr. Wyeth's observation. The gentleman had resided in Texas since the war, leading quite an active life as a cotton buyer. When Dr. Wyeth examined his foot in 1880, there was considerable swelling, a suppurating wound on either side at the points of entrance and exit; and a tortuous sinus connecting these openings, through which a probe was passed with difficulty. The patient suffered intensely at times with pains, which extended to the toes and often up the legs; he was much emaciated, and had grown accustomed to the use of opium to relieve his suffering. After consultation with Drs. F. H. Hamilton and E. A. Banks, it was decided to make an effort to save the foot. Both wounds were freely opened, some pieces of carious bone removed, the anterior tibial nerve divided; then a hole was drilled through the foot along the track of the bullet, and a rubber drainage-tube, one-fourth of an inch in diameter, passed through and left in position. The patient improved slowly, but was not much relieved by the operation. He returned to Texas, but in May, 1881 (eight months later), again presented himself. On May 28th, Dr. Wyeth amputated the foot at the tibio-tarsal articulation, performing the operation recommended in the Prize Essay of the Bellevue Alumni Association for 1876; especial care being taken to carry the lower incision well forward, in order not to wound the plantar arteries near the bifurcation of the posterior tibial. The operation was done under the spray, and a drainage-tube was left in the flap, passing out at the most dependent portion. The wound healed by first intention, except where the tube made its exit. The patient recovered promptly, had improved in health very much, suffered no pain whatever, and was wearing an artificial foot with as much comfort as could be expected so soon after the amputation.

DR. HENRY N. HEINEMAN presented a specimen of

CARIES OF THE PETROUS PORTION OF THE TEMPORAL BONE FOLLOWING CHRONIC EAR DISEASE.

The patient was admitted to the Roosevelt Hospital July 13th, 1881, with an indefinite history of illness lasting one week. He was delirious, his temperature rose to 107° F., and he died July 15th. Subsequently it was ascertained that he had had a discharge from the right ear, which had ceased before entering the hospital. At the *autopsy* caries of the anterior and posterior surfaces of the petrous portion of the temporal bone was found. The outer surface of the dura mater covering the bone was coated by a considerable layer of recent fibrin and pus. There was a recent clot in the right petrosal sinus. The vessels of the pia mater were congested, with here and there scanty traces of pus over the convex surface of the right middle lobe of the cerebrum. There was aortic and mitral insufficiency, with dilatation of the left ventricle and hypostatic congestion of the lungs. The liver was congested. The spleen weighed twenty ounces, and was hyperæmic and somewhat soft. The kidneys were the seat of parenchymatous degeneration. The stomach presented the lesions of chronic catarrhal gastritis. The Peyer's patches of the small intestine presented a well-marked shaven-beard appearance.

NOTE.—In Vol. I. of the Transactions, pages 22 to 33, sixteen cases of brain disease from caries of the bones of the ear are reported.

THE SHAVEN-BEARD APPEARANCE OF PEYER'S PATCHES.

Dr. Heineman also presented a portion of the ileum, which exhibited a swollen condition of Peyer's patches, the so-called "shaven-beard appearance," and directed attention to the fact that this condition was frequently found associated with other diseases than typhoid fever, of which it had been considered by some as characteristic; whereas the truth was that the Peyer's patches were not involved in some genuine cases. He had been informed by Dr. Janeway that during the last epidemic of typhoid fever which occurred in New York, Peyer's patches were not involved in the cases in which he had opportunities of making post-mortem examinations. Dr. Heineman had seen the shaven-beard appearance (specimens presented to the Society) associated with three distinct diseases, meningitis with high temperature, cholera morbus, and general pyæmia, and he recalled a case in which Dr. Delafield made an autopsy and found the shaven-beard appearance well marked after an extensive burn.

COMPOUND COMMINUTED FRACTURE OF THE SKULL.

DR. WILLIAM H. PORTER presented a brain from Thomas C——, forty years of age, who was admitted to the service of Dr. George F. Shrady, at the Presbyterian Hospital, October 8th, 1881, with the following history, furnished by Dr. Simpson, house surgeon.

About an hour before admission, the patient fell from a ladder a distance of about thirty feet. On admission he was comatose, somewhat irritable; there was general flexion of limbs, with rigidity somewhat more marked on the right than on the left side. The surface of the body was cold, and the pulse very feeble There was hemorrhage from the nose, and right ear. Also extensive ecchymosis and distention of both eyelids; and a small wound with hæmatoma over the left temporal region, leading down to a comminuted fracture. Lastly, a large hæmatoma over the right parietal region. The patient continued comatose, and died five hours and a half after admission.

Necropsy by Dr. Simpson, house surgeon, twenty hours after death. Rigor mortis fairly marked. Body well nourished. Ecchymosis around the eyeballs. A large hæmatoma under the scalp on the left side.

Thoracic cavity.—The pericardial sac contained three drachms of serous fluid; a small milk patch was seen on the anterior surface of the right ventricle. A very small amount of fluid blood in the left cavities; a larger quantity and a small amount of coagulum in the right cavities of the heart. Weight of organ, thirteen ounces. Valves free and sufficient. The *left* lung was adherent to the diaphragm, but otherwise free in the pleural cavity. There was a small quantity of bloody serum in the left pleural cavity. The second, third, and fourth ribs were fractured midway, between their angles and the costal extremities. Weight of the left lung, twenty ounces. The *right* lung was free in its pleural cavity; weight, twenty-eight ounces. Both organs were deeply congested and œdematous.

Abdominal cavity.—Numerous ecchymotic spots were visible on the small intestine, just underneath the peritoneal coat. The bladder was distended with urine. The spleen was soft and flabby; weight, three ounces. Kidneys: weight of the left, six; of the right, four ounces: gross appearances nearly normal. The liver was small and slightly fatty: weight, sixty-five ounces.

Cranial cavity.—When the scalp was turned back, a large blood-clot was found between it and the skull, the scalp being torn through at one point, as a result of the original injury. There was a compound multiple fracture of the skull involving the right and left temporal, the left parietal, the sphenoidal, and the frontal bones. The centre of the comminution was at the junction of the left parietal, temporal, frontal, and sphenoid; the bones being broken into nineteen small fragments. From the point of union between the anterior inferior angle of the left parietal and frontal bones, the fracture ran inward and forward in a serrated manner across the orbital plate of the frontal, to the crista frontalis, one-fourth of an inch anterior to the foramen cæcum: from this point the fracture was traced backward and outward across the right orbital plate, chipping off the tip of the lesser wing of the sphenoid, thus entering the sphenoidal fissure: from the outer margin of this fissure it was traced inward and backward until it came within one-eighth of an inch of the foramen ovale, when it turned and ran directly outward for five-eighths of an inch. Again bending nearly at a right angle, it coursed directly backward, terminating in the petrous portion of the temporal bone at the "hiatus Falopii." From the last-mentioned angle an irregular fissure ran outward and upward across the squamous portion of the right temporal bone. On the left side, a second fracture across the orbital plate was seen leading from the cleavage already described. Starting one-fourth of an inch to the left of the crista frontalis, it went rearward and through the base of the lesser wing into the internal side of the left sphenoidal, back across the great wing of the sphenoid just external to the foramen rotundum and ovale, and terminated in the petrous portion of the right temporal bone at the "hiatus Fallopii." As a result of this double fracture of the orbital plate of the frontal, and lesser wing of the sphenoid on the left side, there was an isolated triangular piece of bone, the apex of which was pushed forward and depressed into the orbit, while its base was directed posteriorly and elevated into the cranial vault, thus lacerating the inferior surface of the anterior cerebral lobe on this side.

The interest relative to the brain was the deep congestion of the meninges, and a large clot of blood seated upon the convexity of the left hemisphere. The major portion of this clot rested on both sides of the fissure of Rolando, evidently producing a decided compression of the posterior half of the first and second convolutions, the anterior and posterior central, the supra-sylvian or supra-marginal, and the anterior half of the upper parietal convolutions.

Note.—See Vol. I. of the Transactions, pages 33 to 41.

CANCER OF THE STOMACH.

Dr. Porter also presented a carcinomatous stomach with the following history, furnished by Dr. E. B. Ramsdell: The patient was a man sixty-five years old, who, in August, 1880, began to suffer from what he supposed was neuralgia of the stomach. Previous to that date he had had a variety of diagnoses from different physicians, such as Bright's disease, diabetes, cancer, etc.

In October, 1880, he had for the first time an elevation of temperature, a diagnosis of malarial fever was made, and the patient changed his residence. From that time until March, 1881, he had no special symptoms except slight pain in the epigastrium, sometimes extending through to the back and under the scapula, and burning in character. He gradually lost flesh and strength between October and March, and at several different times the physicians detected, as was supposed, enlarged lymphatic glands of both iliac regions, but at the autopsy no hypertrophy of them was found. About the middle of March, the patient came under the care of Dr. Ramsdell, who restricted him to a liquid diet, which was continued until the latter part of March, when he disobeyed orders, took solid food, and vomited for the first time: this did not continue, however, nor was nausea or vomiting a marked symptom at any time during the entire course of the disease. From March until the time of his death the fluid diet was continued.

From the cachectic appearance of the patient, his steady loss of flesh and strength, and the pains in the epigastrium, the right hypochondriac region, and through to the back, though only moderate in severity, it was suspected that cancer existed. No positive diagnosis was made, however, until about the middle of July, when Dr. Ramsdell detected a tumor, and then believed he had to deal with cancer of the stomach. Dr. George F. Shrady saw the patient in consultation, and confirmed Dr. Ramsdell's diagnosis.

The specimen was interesting from the fact that the cancer evidently began in the lesser curvature of the stomach, which accounted for the obscurity of the early symptoms. Although the disease ultimately surrounded the stomach, it did not absolutely encroach upon the pyloric orifice, and that perhaps might explain why the patient had no vomiting after being placed upon an exclusively fluid diet.

DR. BRIDDON thought that vomiting was not a common symptom in cancer of the stomach where the disease did not involve the pyloric extremity.

THE PRESIDENT remarked that several specimens had been presented to the Society which substantiated the statement that when cancer did not involve the pylorus, vomiting was not a prominent symptom.

DR. SHRADY said that this absence of vomiting was considered in Dr. Ramsdell's case, and from it the diagnosis was made that the cancer was not situated at the pylorus.

NOTE.—In Vol. I. of the Transactions, pages 254 to 264, sixty cases of cancer of the stomach are reported.

UNILATERAL NEPHRO-LITHIASIS—COMPLETE OBLITERATION OF ONE KIDNEY AND CHRONIC DIFFUSE INFLAMMATION OF THE OTHER.

Dr. Edmund C. Wendt presented specimens of the above, accompanied by the following history, furnished by Dr. David Haig, house physician of the St. Francis Hospital: The patient, a native of Ireland, was fifty years of age and a widow. She was admitted to the Hospital on October 8th, in the service of Dr. Lellmann. She had generally enjoyed good health, and remembered no serious previous illness; but she had been accustomed to indulge, as she said, moderately, in alcoholic drinks. Her sickness began about two years ago with pain referred to the epigastric region. The nature of the pain was described as sharp and lancinating, and radiated backward into the loins. It soon became constant, and gradually increased in severity. Acute paroxysms or colics she did not mention as having occurred.

Some six months ago, she noticed a rather rapid loss of flesh and strength, while the skin assumed a dirty yellowish complexion. From this time until her death there was progressive emaciation. About six weeks before her admission to the hospital, she began to vomit, and the rejected substances had a greenish-black appearance. When she entered the hospital, there was a pronounced cachexia, great emaciation, and utter prostration. There was also persistent vomiting of a greenish fluid, having a very offensive odor; and the liver was found enlarged, and the hepatic region tender to the touch. Slight œdema of both lungs was also present. Her pulse was weak, 124 per minute; temperature about 98½° F.; and respiration 32.

The urine contained fifty per cent (by bulk) of albumen—a microscopical examination was unfortunately not made. During the five days of her stay in the hospital, there was little change in the patient's condition. The vomiting was temporarily controlled, and the pain somewhat allayed; but she soon refused all nourishment and passed into a state of more or less profound stupor, from which she could only be roused with some difficulty. Death took place at night on October 23d.

An autopsy was made by Dr. Wendt on the next day. There was some serous fluid in both pleural cavities. The lung, on the left side, particularly near the diaphragm, was bound down by old adhesions. General pulmonary œdema was also present on both sides.

The *heart* showed great hypertrophy of the left ventricle, and there were the usual signs of a recent fibrino-serous pericarditis. All the valves were healthy; but the muscular substance was abnormally soft, which was apparently due to slight fatty changes.

In the abdominal cavity a small quantity of slightly turbid fluid was found; but no evidence of peritonitis, either general or local.

The *liver* was enlarged, flabby, fatty, and very rich in blood.

In the *stomach* a very marked hypertrophy of the mucous membrane was discovered, with conspicuous rugæ and superficial ecchymoses. The entire surface was coated with a thick layer of viscid slime.

The *spleen* was friable, and the whole organ, though reduced in size, appeared congested. It was fixed to the diaphragm above, and to an indistinctly circumscribed mass of hard tissue below.

The mass of tissue just mentioned corresponded in position to the left kidney; it was removed with great difficulty, and a portion of the spleen remained firmly attached to it. On examination it was found to represent the remnant of the completely obliterated *left kidney*. Intercommunicating fibrous channels, and pockets lined with a velvety mucous membrane, alone remained to tell the tale of a completely wasted kidney. Not a trace of renal parenchyma was visible. At the lower end of this multilocular sac, which corresponded to the dilated renal pelvis, a branching, slightly adherent, blackish calculus was found imbedded. Infiltrated adipose tissue, outside of a thick, hard capsule, surrounded the entire mass.

The *right kidney* was only slightly enlarged. Its capsule was adherent here and there. The external surface was bossed, and had a variegated appearance owing to the difference in color between the protuberances and depressions. On section, no lines of demarcation between the cortex and medulla were visible; but here and there a pyramid was faintly marked. The surface had a dusky reddish hue, relieved by variously sized patches of lighter color. Microscopical examination revealed the characteristic changes of a chronic diffuse nephritis.

Dr. Wendt thought the case an exceptional one, and interesting both in its clinical and pathological aspects. First, in regard to the clinical history: as far as could be ascertained, the most prominent symptoms had been gastric rather than renal; at least the stomach symptoms had predominated. Renal colics apparently had never occurred. Acute uræmic symptoms came on only toward the close of life; yet one kidney was completely wasted, and the other in a very unfavorable condition for the healthy performance of its function. Doubtless both conditions had existed for a long period.

Moreover, there was no vicarious hypertrophy of the right kidney to compensate for the gradual loss of the left one. Probably the interstitial renal changes had prevented such an enlargement. The calculus must have blocked up the left ureter, caused a suppurative pyelitis, and finally led to dilatation of the renal pelvis and calyces, which so encroached upon the secreting tissue of the kidney as to result in a complete atrophy of its parenchyma. The true gastritis, as manifested by a much thickened mucous membrane of the stomach, was probably caused in the first instance by the abuse of alcoholic beverages; but the persistent vomiting of offensive fluid toward the close of life was doubtless induced by an overloading of the system with urates; and should be interpreted as a subacute uræmia.

Dr. Ripley thought that persistent vomiting was a very prominent symptom of kidney disease, and that it was likely to be associated with considerable pain. Continued vomiting should always lead to an examination of the urine.

Dr. Briddon believed that persistent vomiting was by far the most constant symptom in uræmia, but he did not think much pain was commonly associated with it. He doubted the propriety of arresting the vomiting in such cases.

Dr. Ripley said that the best method for arresting the vomiting was to eliminate the urea, and the next best agent was morphia.

Dr. Briddon supposed that with kidneys such as Dr. Wendt had presented, no evidence of kidney disease would be found by examining the urine; the presence of pus doubtless accounted largely for the albumen present in this case.

Dr. Heineman remarked that he understood fifty per cent of albumen had been found in the urine. He had heard no reference in the history of the case to any microscopic record; and he was not inclined to accept the view suggested that the albumen was entirely owing to pus. The quantity of liq. puris required to furnish fifty per cent of albumen must be very great; and the pus would then have been noted even from naked-eye observation. The amount of albumen could be well accounted for by supposing that the patient had had an acute exacerbation of chronic nephritis.

Dr. Ripley thought that if albumen was not found in the urine, we were not likely to find any other evidence of kidney disease.

The President suggested that Dr. Ripley's statement would not hold good in most cases. In the variety of kidney presented by Dr. Wendt, *i. e.*, the small contracted kidney, albumen was frequently absent from the urine. Therefore the case was the more remarkable.

Dr. Wendt stated that evidently an acute attack had been engrafted upon a chronic disease of the right kidney, and it was that which killed the patient.

Note.—In Vol. III. of the Transactions, pages 123 to 155, thirty cases of pyonephritis are reported.

LEUCOCYTHEMIA: INVOLVEMENT OF THE SPLEEN, LIVER, AND LYMPHATIC GLANDS—DEATH FROM RETRO-PERITONEAL HEMORRHAGE.

The President presented the spleen and liver from the above case, and gave the following history:

K. F——, aged seventeen, German, single, was admitted into St. Luke's Hospital on October 18th, 1881. Nothing was elicited in her family history tending to show that she had inherited any constitutional taint. Her father and mother and nine brothers and sisters are all living, and said to be in good health. At seven years of age she had measles, but it was not thought that any sequelæ affected her subsequently. During the last four months she had not menstruated, but she had always been irregular. When her periods finally stopped, she observed a swelling in the left side of her abdomen with pain for two days.

She then commenced to lose flesh, but subsequently regained it. Soon she began to have dyspnœa; and for five weeks frontal headache, coming on in the afternoon and lasting two hours. A month previously she noticed discoloration (ecchymoses) upon different parts of her limbs. The bowels were regular, and appetite good. Her general appearance did not indicate anæmia. On palpation, the tumor was found by the attending physician (Dr. A. B. Ball) to be an enlarged spleen; and examination of the blood by the microscope having shown that the white corpuscles were in very great excess of the red, a diagnosis of leucocythemia was made. On October 22d (fourth day after admission) another large tumor was discovered in the right hypochondriac region, which increased somewhat rapidly in size, and was accompanied by pain and vomiting. Fourteen hours subsequently she died, with the symptoms of exhaustion from loss of blood. The cause of death was attributed by the attending physician to a sudden retro-peritoneal hemorrhage, which was verified at the post-mortem examination.

Autopsy (twenty hours after death).—Body in a fairly good state of nutrition; no emaciation. Before the abdomen was opened, the two tumors, one on the left and the other on the right of the spinal column, could be distinctly appreciated by palpation; but their limits could not be accurately defined by percussion. The left tumor could be lifted up along its right margin, and its convoluted edge might even be felt through the abdominal parietes. The right tumor was immovable, more deeply seated, its limits were ill-defined, and it was also softer to the feel. The vagina admitted the forefinger with some difficulty, but the uterus was in its normal position and freely movable.

On exposing the *peritoneal cavity*. it was found to contain twelve ounces of blood-serum.

The *spleen* extended from the diaphragm obliquely downward, so that its lower extremity rested against the symphysis pubis. It had risen from its normal position and become quite superficial, partly overlying the intestines for all of its length. It contained no tumors, but had a grayish brick-red color, and was firm and solid, much like a lung in a state of red hepatization. Weight, four and three-fourth pounds.

The pericardial sac contained one and one-half ounces of clear serum. The *right lung* was free and normal. The *left lung* was attached posteriorly and inferiorly by four pleuritic adhesions. The heart-substance was soft, and the blood in its cavities of a maroon-red color, and imperfectly clotted; weight, nine ounces.

Liver.—In this there was a tumor (lymphatic) as large as a pear, just beneath the posterior and under surface of the right lobe. Its substance was unusually soft, almost diffluent; weight, six and one-half pounds.

The *left kidney* was pale; its capsule neither thickened nor adherent. The cortical markings were not irregular. In its pelvis, which was not inflamed, there appeared to be pus, which, in one place, could be traced up to a cheesy-looking papilla; weight, five ounces.

The right swelling was found, on turning back the intestines, to be due to a retro-peritoneal extravasation of blood, which extended from the sixth rib, in the mammary line, to the level of the anterior superior spines. Pressing the peritonæum forward, it formed a heart-shaped tumor, with its apex directed upward and its base downward; while the greatest convexity corresponded to a line drawn horizontally across the free borders of the ribs. Attached to the peritonæum, over the lower and anterior portions of the tumor, lay the vermiform appendix, having a direction longitudinal to that of the body. The ileo-cæcal valve was raised to the level of the anterior superior iliac spine.

The blood-clot composing the tumor was of a maroon-color and pasty; it weighed sixty-seven ounces. In its centre was the right kidney, the condition of which was not essentially different from the left; its pelvis also contained yellowish matter, looking like pus.

The *retro-peritoneal glands* were enlarged, infiltrated, and dull-gray in color.

Blood, from the hepatic vein and heart, and the supposed pus from the kidneys, were examined microscopically: the white corpuscles were found to occupy fully three-fourths of the field of the microscope, and the red were much altered in appearance. With them were also great numbers of the smaller corpuscles (microcytes), which have been observed in similar cases. The peculiar octagonal crystals described by Charcot, as characteristic of leucæmic blood, were also present.

The cause of the hemorrhage in this instance was attributed to the fatty condition of the vessels—a peculiarity of the disease. The bleeding apparently proceeded from a minute vein, possibly the phrenic or supra-renal, upon which, doubtless, great strain was brought, partly from the obstructing influence of the enlarged liver, and partly from the pressure of the diseased lymphatic glands. The supposed pus in the kidney proved to be altered epithelium from the pelvis of the kidney.*

PISTOL-SHOT WOUND OF THE THIGH—PERFORATION OF THE FEMORAL ARTERY—EXTRACTION OF THE BALL AND LIGATION OF THE VESSEL.

THE PRESIDENT presented a pistol-ball and drainage-tube with hare-lip pins, connected with which was the following history:

W. T. L——, a young man living in his neighborhood, was accidentally shot through the right thigh on December 10th, 1880; the bullet entered the thigh on its anterior aspect, about the junction of the upper and middle thirds, and just over the sartorius muscle. The patient presented himself a few hours after receipt of the injury, when the swollen condition of the limb, the expansive pulsations in it, and the diminished beating in the tibials, immediately excited suspicion that the femoral artery had been injured. No probing was resorted to, as the bullet could be plainly felt just beneath the skin, in the popliteal region below the joint; it was removed by a slight incision of the integument, and without any anæsthetic. After closure of the two wounds with adhesive plaster, the entire limb was evenly compressed with a rubber bandage, after which the patient returned to his home on foot, and went at once to bed. The pain increased, however, and he soon complained of a "bursting" sensation in the thigh. As the pulsation was now more strongly marked, a compress and spica-bandage were applied over the femoral in the groin; but these afforded only partial relief, and it was subsequently determined to accomplish the same object by flexing the thigh upon the pelvis, and placing a compress (in this case a roller-bandage) over the vessel between the thigh and pelvis. Notwithstanding this treatment, it soon became apparent there was a circumscribed tumor in the course of the femoral artery, near the junction of the lower and middle third of the thigh. A consultation was accordingly held with Dr. J. L. Little, who sanctioned an operation, the object of which was to expose the blood-sac and tie the injured vessel above and below its wound. This was done on December 19th, with the assistance of Drs. Little and G. F. Shrady, and under full antiseptic precautions (Lister's method). An incision, eight inches in length, having the external wound for its upper limit, was carried down over the course of the femoral vessels; a mass of firm blood-clot, the size of two fists, was brought into view, and removed by the hand; while smaller masses of coagulated blood were taken from the intra-muscular planes. The sheath of the femoral artery was now exposed above Hunter's canal for about two inches, but the injured point could not be found. It was then decided to open the canal; the dissection was accordingly carried still further downward, and the wound in the vessel was quickly discovered just two and one-half inches above the upper limit of the popliteal space. It was detected by the fact that the walls of the vessel were denuded just around the opening, giving this spot a peculiar white appearance. The bullet (calibre 22 short) had cut a hole out of the side of the vessel, and passed close to the vein and nerve. The limb had been rendered bloodless by Esmarch's bandage; but all the arteries were tied with carbolized gut, their ends cut short and left in the wound. Owing to the great depth of the incision, and the laceration of soft parts, occasioned by the prolonged search for the wound in the vessel, it was thought best not to unite the edges of the incisions by the ordinary silk sutures, but to insert hare-lip pins instead. A drainage-tube also was laid deeply in the cut with its two extremities exposed. The temperature on the same evening was 100° F. in the axilla, and it reached its maximum on the third day (December 22d), when it was 101° F. Two of the pins were then removed: on the fifth day two other pins were taken out; and on the ninth day the last remaining pins. The axillary temperature at this time 99° F.: no unfavorable symptoms followed, and the patient left his bed on January 30th, 1881. On May 1st, the wound was found to be completely healed, but the patient limped. The delayed union in this case was evidently due to the fact that the ligatures were only in part absorbed, for at intervals small portions would work their way to the surface, and be found in the discharges at the time of dressing the limb. When examined in October, 1881, the limping had disappeared; but there still continued to be some pain in the knee and a numbness in the leg. Pulsation in the limb never returned. At the present time the patient's health is entirely restored.

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* See Bulletin, pages 55 to 64. Obstructions of the right lymphatic and of the thoracic duct where they empty into the subclavian veins are exciting attention.

As minor points of some pathological interest in the case, attention was directed to two facts which were corroborative of observations that have been made in similar instances.

First—That the carbolized gut ligature is not always absorbed, and, indeed, may actually retard the union of a wound.

Second—That it is not always easy, even under exceptionally favorable circumstances, to find the site of injury in a vessel that has been opened into. In this particular case, where the locality of the lesion was definitely known within a tolerably limited area, fully one hour was consumed before the opening could be found, and then attention was only drawn to it by holding in view the consideration already alluded to. Obviously, then, in penetrating gunshot wounds of large calibre and of great length, where hemorrhage has occurred, the difficulty of finding the precise site of injury to a vessel would be still greater.

The Society then went into executive session.

STATED MEETING, NOVEMBER 9TH, 1881.

Dr. George F. Shrady, *President pro tem., in the Chair.*
Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Chronic cystitis, with cystic renal disease. By Dr. B. A. Watson.
2. Necrosis of the clavicle, with restoration of the bone. By Dr. John A. Wyeth.
3. Discussion by Drs. Briddon, Ripley, Gerster, and Putnam-Jacobi.
4. Rupture of the jejunum.......By Dr. W. M. Carpenter.
5. Discussion by Drs. Briddon, Putnam-Jacobi, Geo. F. Shrady, and Wyeth.
6. Sudden death without assignable cause. By Dr. R. E. Van Gieson.
7. Discussion by Drs. Wyeth, Shrady, Carpenter, Putnam-Jacobi, and Ripley.
8. Epithelioma of the neck........By Dr. John H. Ripley.
9. Discussion............. By Drs. Gill Wylie and Wyeth.
10. Condition of the placental site after labor at full term. By Dr. John H. Ripley.
11. Discussion................ By Drs. Briddon and Wylie.

CHRONIC CYSTITIS WITH CYSTIC DEGENERATION OF THE KIDNEYS.

Dr. B. A. Watson presented a specimen with the following history: J. H. W——, born in Massachusetts, forty-seven years of age, and a cracker peddler, was attacked with cystitis about thirteen years ago, and has since suffered periodically with fits of gravel, while his urine has been constantly ammoniacal, loaded with pus and with a substance which the deceased designated as "white sand." Six years ago, the urethra became completely obstructed by a stone, which was so large that it could only be removed in fragments, and since he has always been compelled to void his urine at least once every hour. Last May he came under the professional care of Dr. F., who referred him to Dr. T., who examined for stone in the bladder, with a negative result; but the introduction of the sound was followed by a protracted hemorrhage, and profuse discharge of the previously mentioned "white sand." The diagnosis was "chronic cystitis with hypertrophy of the walls of the bladder." Cystotomy was recommended, but not accepted, and the patient was treated with atropia and dog-grass. No additional information from this date until the 6th of last October was obtained, when the patient, who was then suffering from retention of urine, again applied to Dr. F., who now requested Dr. H. to pass a No. 8 English catheter. A careful examination of the urethra and bladder disclosed in the bulbous portion of the former a slight stricture, which was dilated in two sittings so as to pass an English No. 13 sound. The bladder was also discovered to be greatly contracted. Twenty-four hours after this examination hemorrhage began, lasting thirty-six hours, and was followed by a slight, though brief improvement in the symptoms; but during the night of October 11th he became slightly delirious, and on the following day the attending physician diagnosed diphtheria. The patient, probably somewhat influenced by the grave character of the prognosis, and apparently unwilling to await the fatal progress of disease, sought a favorable opportunity, and terminated his existence by sending a pistol-ball through his brain on October 12th.

Post-mortem appearances.—The physician making the autopsy failed to note the external appearances of the body except the pistol wound in the temple, which, he says, caused death. In short, the report was entirely limited to the pathological specimens now presented to the Society, and Dr. Watson, therefore, concluded that there was nothing else observed worthy of study. The facts were mentioned that the right kidney was larger than the left and weighed, before it was opened and the fluids permitted to escape, fifteen ounces; while the left weighed only eleven: and that the cysts in both contained a "milky fluid," which resembled "a broken-down cheesy deposit."

Remarks.—It will undoubtedly be admitted that the bladder furnishes a good representation of the local effects of chronic cystitis: its mucous membrane, prior to its being placed in alcohol, possessed the characteristic brown color; and marked hypertrophy of the walls may still be seen. The right ureter is much more capacious than the left, and in this respect corresponds with the kidneys, where the chief interest of the specimen probably centres. The cystic degeneration has already been mentioned, but it will be observed that there is also an abnormal quantity and distribution of kidney-fat. Is this fatty condition a part of the cystic degeneration, or have we in these organs both fatty and cystic diseases? The etiology of the kidney disease and its relation to the chronic cystitis may also be worthy of some consideration in connection with this specimen. The history of the case renders it quite certain [?] that cystitis was the primary lesion, notwithstanding the presence of stricture of the urethra.

NOTE.—In Vol. III. of the Transactions, pages 155 to 169, twenty-one cases of kidney cysts are reported.

NECROSIS OF THE CLAVICLE FROM INJURY—SUB-PERIOSTEAL REMOVAL OF A PORTION OF THE BONE IN ITS ENTIRE LENGTH—RECOVERY, WITH A USEFUL ARM AND A REPRODUCTION OF THE WHOLE CLAVICLE.

DR. JOHN A. WYETH presented a patient and portions of necrosed bone with the following history: Edward M. Conley, sixteen years of age, on February 21st, 1881, had his left clavicle dislocated at the sternal end, and broken at the junction of the outer and middle third, by a lad who caught him by both shoulders from behind, and violently pulled his shoulders backward. Two days later a surgeon attempted to reduce the dislocation, and a "Sayre dressing" for fractured clavicle was applied. On February 28th, seven days after the accident and five after he was thus treated, he came under Dr. Wyeth's observation. The dressing having been removed, he found a tumor as large as a lemon at the sterno-clavicular articulation, which he immediately opened, and discharged about two ounces of pus. Within the next few weeks two or three other sinuses opened in the course of the clavicle, giving evidence of extensive necrosis; and on May 7th, he removed all of the diseased bone. The incision extended from the *sternum* along the clavicle to the acromion process: the periosteum was laid back to either side of the cut: about twenty pieces (the largest about two inches in length) were taken out; and three-fourths of an inch of the sternal end was removed entire. Where the bone showed evidence of life, that is, when it looked red and sound, he chiseled off the necrosed tissue to this line of living bone, and left the rest. Upon this osseous and periosteal nucleus a new and useful clavicle has been reproduced; and on July 7th, the lad was put at work as a telegraph messenger.

DR. BRIDDON asked if the health of the patient, previous to the accident, was intact. He thought it was unusual for so much necrosis to follow an injury of that character.

DR. WYETH replied that, so far as he had been able to ascertain, the previous health of the patient was good, although he had not been an extremely rugged boy.

DR. RIPLEY suggested that the injury itself was unusual, and he thought there must be some vice in the boy's system to explain its grave results.

DR. BRIDDON said that twenty years ago he reported a case in which acute necrosis had taken place with diaphysis of the clavicle. The whole clavicle was removed, but it was reproduced entirely, and the recovery was so perfect that the injured could not be distinguished from the sound bone.

DR. GERSTER asked if there was any external wound at the time of the injury.

DR. WYETH answered that the injury was subcutaneous throughout.

DR. GERSTER remarked that the results were admirable, and drew attention to one point, namely, the pathology of these cases. He had seen only two instances in which the cause was similar to that operating in Dr. Wyeth's case. Some few young persons sustain fractures of the clavicle which are entirely subcutaneous, and suppuration takes place about the fractured point. He inquired whether any of the members had seen such cases. Dr. Wyeth's was the third which he had seen, and he could not understand why subcutaneous fracture should go on to suppuration.

Dr. Wyeth supplied an explanation, namely, that there was great displacement of the bone, removing it considerably from its original position, and necessarily severing all arterial communication. Probably the nutrient artery was also severed at the time the fracture was produced, and these facts combined perhaps might account for the general necrosis which ensued.

Dr. Briddon doubted whether the suggestion made by Dr. Wyeth concerning severance of the nutrient artery of the bone would account for the condition which had followed; because fractures at that point were met with over and over again, and yet necrosis did not often occur. He believed there was some constitutional vice in this case which would explain its subsequent history.

Dr. Wyeth admitted the general influence of a constitutional taint, but he thought it possible that the necrosis might, in part, be occasioned by the injury to the circulation. Still he knew that bones were exceedingly vital, as was proved by experiments made by McEwen, of Glasgow, who removed in one case nine inches of the humerus in a child, and took chips of bones half an inch in length or more from a newly amputated limb and placed them in the opening, where they united, and new humerus-bone was produced throughout. This would seem to prove that fresh bone possessed a greater vitality than it had heretofore been credited with. Certainly, simply cracking the bone and dividing the nutrient artery would not explain the necrosis without some antecedent constitutional condition.

Dr. Briddon maintained that Dr. McEwen's experiments also proved that the nutrient artery was not solely essential to the life of bone.

Dr. Putnam-Jacobi thought that the nutrient artery was of little importance in sustaining the life of the bone, when compared with the blood-vessels which come from the periosteum.

Dr. Wyeth remarked that both sets of vessels had been considered essential to the life of bone. He also referred to experiments performed by a German surgeon, who cut out chips of bone without reference to their shape, and placed them in openings in other bones without reference to the position of the periosteum, and serviceable bones were the result.

RUPTURE OF THE JEJUNUM.

Dr. W. M. Carpenter presented a specimen which was interesting, especially with reference to one or two points in its clinical history. It was from the body of a man, forty years of age, a hod-carrier, who fell from a third story of a building. He was removed in an ambulance to Bellevue Hospital, and the following items in the clinical history of the case had been furnished by the house surgeon, Dr. Hartley: There was a double Colles' fracture; an incised wound extending two inches downward from near the angle of the mouth on the right side, over the lower jaw; and evidence of contusion over the right ilium and upon the lower portion of the right side of the thorax. On admission, the patient complained of pain, which he referred to the right side of the abdomen and the lumbar region. He was in a condition of shock, although not profoundly so. There was pallor, but not marked, with coolness of the surface of the body and extremities. His pulse was 120 and feeble, and he had vomited once; he was also restless, and his countenance somewhat anxious. Fomentations were applied over the abdomen, a hypodermic injection of morphine was administered, and soon the symptoms of shock all disappeared, so that in a few hours the patient's pulse was 90, and full, his skin warm and moist, and his general condition very good. The only thing of which he then complained was the pain referred the right side of the abdomen; and about twenty minutes before his death he was seen by the house surgeon, when this condition of general comfort still existed. But the orderly suddenly noticed that there was a change in the appearance of the patient, went to the bedside, found that his extremities and the surface of his body were cold; immediately called the house surgeon, who quickly arrived, but found the patient dead. At no time were there any head symptoms.

At the *autopsy*, there was found double Colles' fracture and the incised wound already described; also evidences of contusion on the lower portion of the right side of the chest and over the right ilium. On opening the abdomen, gas escaped freely, and several ounces of bloody serum, with some fæcal matter, were found in it. The liver, spleen, and kidneys were apparently normal. The lumbar muscles were contused, and contained extravasations of of blood. In the jejunum, there was a rupture which extended about half-way around the bowel. Plastic exudation was seen upon the convex surface of this portion of the intestine, extending along a distance of fifteen or eighteen inches. The thoracic organs were normal. The brain was not examined.

The chief points of interest in the clinical history of the case, were the difficulty in diagnosis and the almost complete restoration from the shock. The house staff were unable to reach a decided opinion as to whether there was laceration of the liver or of the spleen, or whether there was internal hemorrhage or rupture of the intestine. The patient died eight hours after admission.

DR. BRIDDON remarked that the specimen possessed special interest in connection with a subject [peritoneal surgery] which had recently been under discussion, and well illustrated the difficulty in making positive diagnoses in cases of internal abdominal injury. In the present case, there was nothing by which an accurate diagnosis could be made, and certainly there was nothing sufficiently exact to warrant any surgical interference with the abdominal cavity in this instance.

DR. PUTNAM-JACOBI suggested that the restoration from shock could be explained on the supposition that there had been partial rupture only of the intestine at the time of the accident, and that just before death the laceration had become complete, and given rise to secondary shock.

DR. G. F. SHRADY hinted that there might have been complete rupture with moderate escape of intestinal contents, then a a temporary arrest of the discharge, followed by reaction; and finally, another outflow of intestinal contents, which was the immediate cause of the ultimate shock and death.

DR. WYETH referred to two cases, met with by Dr. Janeway, in which sudden death was produced by fracture of the odontoid process, and suggested the possibility that in the present case the sudden death might have been caused by some such accident, which had passed unrecognized.

SUDDEN DEATH WITHOUT ASSIGNABLE CAUSE.

Dr. R. E. Van Gieson presented a brain with the following history: The patient was seen by me in June, 1878. He was then a well-nourished man, about forty-six years of age, the eldest of three children of healthy parents well advanced in life, and free from hereditary taint of any kind.

In the summer of 1875, three years before I saw him, he had suffered from what was called a heat-stroke, *i. e.*, he was suddenly seized, on a very warm day, with giddiness, headache, and strabismus. In about a week he recovered and resumed his business, that of a clerk; but any close application to work brought on severe headaches for a long time afterward. The strabismus disappeared a day or two after the attack of heat-stroke.

From that time until the early part of 1878 he was comparatively well; but he was then attacked with intense supra-orbital headache, very severe, and prolonged. He, nevertheless, kept at his desk until February 22d, when he noticed that he was unable to open his right eye, and that the eye itself was very much turned from its axis towards the right; and not long afterward the left eye gradually became similarly affected. In June, 1878, the left eyelid was almost entirely paralyzed, and his memory for recent events was much impaired, but his intellect and judgment were clear. His appetite was good, and bowels regular. At times, the pain seemed periodical, but the element of periodicity was not noticeable during the latter part of the disease.

I first saw the patient on June 13th, in consultation with Dr. E. G. Janeway and Dr. O'Brien. He was then free from pain, answered questions readily and intelligently, his muscular grasp was of fair force, and equal; movements of limbs co-ordinate; no evidence of paralysis, except in the parts already described. Ophthalmoscopic examination revealed no lesions of the fundus; both eyelids showed nearly complete ptosis, most marked in the right; both globes were strongly divergent.

Searching questions traced probable syphilis, apparently arrested by treatment some eighteen or twenty years ago. No nodes or thickening of scalp could be discovered, but the disease was diagnosed as paralysis of the third nerve, from the remote effects of venereal disorder. The lungs and heart were carefully examined, with negative results. Repeated explorations of the thoracic organs, made during the further progress of the case, showed no appreciable lesions. Frequent examinations of the urine displayed no trace of anything but slight deposits of urates from occasional overloading of the stomach, and consequent temporary gastric derangement.

It was agreed to treat him with large doses of iodide of potassium, increased daily until the point of intolerance was reached. The initial dose was two scruples, in divided doses, per diem.

On July 29th, the daily dose was six and one-half drachms, which he continued until August 10th, without visible improvement, when diarrhœa, sore throat, reddened fauces, and burning pains in the stomach occurred.

The dose was now reduced to three drachms daily.

August 15th.—The foregoing symptoms still persisting, the iodide was withdrawn entirely and tonic doses of strychnine, quinine, and iron were ordered.

September 5th.—General health improved; local condition about the same; appetite and sleep good.

September 15th.—Resumed the kali iod., alternated with one twenty-fourth grain doses of hydrarg. bichloride.

December 2d.—Withdrew the bichloride, and gave one-half to two-thirds of a grain of the proto-iodide in its stead.

April 1st, 1880.—The patient has been seen at intervals, and the mercurials and iodides kept up; the ptosis of the left eye is disappearing as well as the divergence; the right eye is better, but in a less degree.

February, 1881.—Has been seen occasionally, say, four to six weeks. There is a gradual improvement in the right eye—the pupil can be brought nearly to the normal centre of vision: specific treatment was suspended for a few days, and tonics given in the mean time.

March, 1881.—Ptosis of right eye, not marked except when the patient is much fatigued. The right eye can be brought fully up to the normal axis *when the left eye is closed;* but when both eyes are open, the right still diverges a little.

April 5th, 1881.—Called suddenly and found the patient suffering from severe pains in the right shoulder and elbow, without redness or swelling. The pulse and temperature were normal. The tongue showed superficial erosion and slight indentation.

April 8th, 1881.—The arm from the shoulder to the elbow is intensely ecchymosed, much resembling the appearances seen some hours after a fracture of the humerus; there is slight swelling, but the pain has disappeared. This condition of things was diagnosed as being caused by self-inflicted violence during a night-convulsion.

May 20th, 1881.—The right arm shows the same condition of things in a less degree; the tongue gives no signs of having been bitten.

June, 1881.—Slight lingual paralysis; was unable to talk for several minutes; eyeballs protruding and staring expression of the face; difficulty in swallowing; partial loss of consciousness. The whole attack was estimated roughly as lasting some ten minutes, but he had entirely recovered when I saw him about a half-hour from the beginning of the paroxysm, although he could give no intelligible account of it.

September 11th, 1881, 3 A.M.—Had a similar attack, lasting only a few minutes; the tongue is bitten on one side.

September 24th.—Another and severer paroxysm, accompanied with slight convulsive movements.

October 16th.—He had a violent, long-continued convulsion, commencing at 9 P.M.: at the beginning the eyes were fixed for an instant, then the hands and feet were drawn rapidly backward and forward, and the muscles of the trunk thrown into a state of tonic spasm; loud shrieks and groans attended the movements; but there was no frothing at the mouth, and only slight mucous râles in breathing. As the movements of the limbs subsided, the head was rolled rapidly from side to side, and after a time came an interval of rest, but no return of consciousness. Then followed another severe convulsion, so that up to 9 A.M. of the 17th, twelve hours after the first attack, he had had nine convulsions.

On the 18th he was again quite well, suffering only from lameness in the shoulders and arms.

October 21st.—Is very much prostrated, and prefers to lie in bed.

October 27th.—Is again about, apparently as well as usual, although his bowels have not been moved for a week. One-half minim of croton oil produced a free evacuation, after which he declared he felt better than he had for months, and desired to go out; but it was not deemed safe to grant him permission so to do.

November 8th.—Awakened feeling unusually cheerful. On coming out of the bath-room, where he had been washing, he passed through the hall and entered the adjoining room. His sister, sitting near the window—he just within the door—noticed that he stood rigid, with fixed eyes, as if dazed by the light: she hastened to him, fearing that he was about to have a convulsion; but, before she reached him, he fell sidewise to the floor, breathed stertorously for a few minutes, and died.

I made the necroscopy with the assistance of Mr. E. Wilson, my student, at 11.30 A.M. to-day, some twenty-seven hours after death. Only the head was examined. The inner surface of the calvarium was free from exostoses; the cerebral surface was moderately congested; the vessels of the pia mater contained rather less than the usual amount of blood; there was no effusion of blood, either on the surface, within the ventricles, or in the substance of the brain.

On the inferior surface of the brain, the most noticeable feature was the large size of the basilar artery, its diameter being probably one-fifth larger than the average, though the brain itself was a large one, weighing fifty-six and three-fourths ounces. The artery was also the seat of extensive atheromatous degeneration. The minuter arteries have not been carefully examined; but it is probable that they are in some degree similarly affected. The protruding ends of the internal carotids were also the seat of atheromatous changes. At the posterior border of the choroid plexus, just where it dips down into the posterior horn of the right lateral ventricle, there were two small, lens-shaped growths, of firm texture, buff-colored, and of about the size respectively of a small split-pea and kidney-bean. These are the only lesions apparent upon the superficial examination thus far made, and they seem hardly sufficient to account for the sudden death.

The diseased condition of the arteries no doubt existed for a long time, and was looked for with some degree of confidence, and also of finding associated with it somewhere a rupture of the arterial walls. Thus far no such condition has been found, and further, the basilar artery is not occluded, but freely pervious in all its course. The same is true of all the arterial trunks and branches visible on the inferior surface of the brain. In the absence of any gross lesion, and after a reconsideration of all the symptoms, we are met with the question, so often propounded after the most searching post-mortem examinations: What, after all, was the immediate cause of death?

Dr. Wyeth had seen a case with Dr. Weber, in which the clinical history was almost identical with that given by Dr. Van Gieson. In that one the basilar artery was occluded. He also referred to eight cases reported by Dr. Hammond, in which there was occlusion of the basilar artery, and the mode of death was like that which took place in Dr. Van Gieson's case.

Dr. Shrady thought that in Dr. Van Gieson's case the basilar artery was nearly occluded.

Dr. Carpenter suggested the possible existence of fatty degeneration of the heart as an explanation of the sudden death in this interesting case. He then referred to another recently reported by Dr. Noeggerath, in which the heart was carefully examined prior to the administration of anæsthetics before the performance of an important surgical operation. It was decided that the heart was perfectly healthy, and there was nothing in the history of the case to indicate that there was any cardiac disease. The patient died suddenly a few hours after the operation, and at the post-mortem there was found extensive fatty degeneration and infiltration of the heart-muscle, and the sudden death was attributed to paralysis supervening upon these pathological conditions. The patient rallied from the operation, and there had been no internal hemorrhage.

Dr. Van Gieson said that such cases were more or less capable of diagnosis, as there was usually great fatigue upon exercise, shortness of breath, and other rational symptoms.

Dr. Putnam-Jacobi referred to the occurrence of symptoms of pseudo-apoplexy depending entirely upon a weakened condition of the heart and circulation, and in which patients lost consciousness over and over again, and then lived on apparently as healthy as before. Dr. Stokes had directed attention to a number of such cases, in which the valves of the heart were perfectly free from lesion, and the only physical signs that could be obtained of cardiac disease was weakened impulse, feeble first sound, and a very slow or exceedingly rapid pulse. Finally, sudden death generally occurred.

Dr. Van Gieson remarked that he had frequently seen such cases, but had never seen convulsions in them.

Dr. Ripley called attention to the fact that in quite a large proportion of cases in patients suffering during life from marked brain-symptoms which led to the supposition that at the autopsy important pathological changes would be found, but in which substantially nothing was revealed. He referred to an instance which came under his observation eight years ago. The patient had suffered from sunstroke, and from that time onward had severe headache; his mind gradually failed, and about six weeks before his death he became semi-comatose and died in that condition. At the autopsy, which was made by Dr. Delafield, nothing was found which explained the fatal termination. Dr. Delafield also made a microscopical examination of the brain, and even then was unable to discover the cause of death.

Dr. Putnam-Jacobi remarked that some brain-lesions were frequently only the approximate source of death. Persons with tumors in various parts of the brain often die suddenly, and, as the growth had existed for a long time, it could only be regarded as a remote cause, for death could only be produced by inhibiting either the cardiac or the respiratory centre of the medulla. If the basilar artery was diseased, as it was in Dr. Van Gieson's case, its branches would also be found in a more or less abnormal condition. Those blood-vessels which passed into the pons might be so altered as to obstruct the circulation, and thus the convulsions would be explained. Those which went to the respiratory centre in the medulla might be so disordered as to temporarily plug the arteries, and thus give rise to sudden death. She was not able to understand why it was necessary to have a greater lesion than that so very apparent in Dr. Van Gieson's case to explain the sudden death. Of course, in this estimate the existence of cerebral hemorrhage or accidents of that character were to be excluded.

Dr. Van Gieson was well aware that in cases in which, from the character of the symptoms during life, it was expected that marked gross lesions would be found at the autopsy, we were frequently disappointed.

Dr. Ripley believed that absolutely sudden death from cerebral hemorrhage was exceedingly rare. In almost all those cases in which abrupt death was supposed to be due to cerebral hemorrhage, the immediate result was occasioned by some other lesion. He had not seen a case in which really sudden death had been produced by cerebral hemorrhage.

Dr. Carpenter stated that he had seen a number of cases in which it was evident that quick, but not instantaneous death had been produced by cerebral hemorrhage as proven by the autopsy.

Note.—In Vol. I of the Transactions, pages 126 to 127, it will be seen that bursting of aneurisms into the pericardium is one of the most frequent causes of absolutely sudden death: 34 cases are reported. The next is rupture of the heart, from occlusion of a coronary artery; or simple fatty degeneration therefrom.

EPITHELIOMA OF THE NECK.

Dr. Ripley presented a specimen with the following history, furnished by Dr. Terriberry, house-surgeon: J. S——, seventy-three years of age, was admitted to Charity Hospital, October 7th, 1881. The patient had often enjoyed very good health. He had had syphilis, but there was no present evidence of the disease. He had been in the habit of drinking alcoholic fluids up to eight years ago. In his early life, he served as a sailor, and during that time he lost his left leg. Twenty years ago, he had typhoid fever, from which he fully recovered. About twelve years ago, while convalescing from varioloid, he noticed a small "bleb," about one-eighth of an inch in diameter, at the apex of the left occipital triangle: it was painless, slightly raised above the surrounding integument, hard to the feel, and from it oozed a watery material on squeezing. At the end of five years, this sore was about half an inch in diameter, and had the same general features, except that it was more solid than when it first appeared. About three years ago, it began to grow more rapidly.

Two months ago, it commenced to ulcerate upon the top and to increase still more quickly. On admission, there was a flattened tumor two inches in diameter, situated at the apex of the left occipital triangle, and abruptly elevated above the surrounding skin to the height of half an inch. It was freely movable. The surface was partially ulcerated, and had an odorless, serosanguinolent discharge; the unbroken portion was smooth and shining. The growth was somewhat indurated, but not painful; nor was there any evidence of inflammatory action in the tissues surrounding it; nor any neighboring glandular enlargement. The patient's general condition was unfavorable: his appetite was poor; his lungs were emphysematous; he had headache, some vertigo, blurred vision, and constipated bowels. A portion of the growth was removed and examined microscopically by Dr. Ripley, and found to be carcinoma of the epithelial variety.

On October 14th, 1881, the patient was anæsthetized, and Dr. Terriberry, house surgeon, removed the tumor, together with a small portion of the muscular tissue by which it was surrounded. No vessels were ligated. The wound was dressed during the first twenty-four hours with picked lint wet in carbolic acid, one drachm to the pint; and afterwards with balsam of Peru and oakum. On November 7th, the case was progressing favorably: the open sore was only an inch in diameter, and had a healthy granulating surface.

Dr. Ripley remarked that he presented the specimen for three reasons: 1st, on account of the unusual chronicity of the disease; 2d, it had not given rise to constitutional symptoms; and, 3d, because the cervical lymphatic glands were not involved.

Dr. Gerster referred to two specimens of amputated legs which he had presented to the Society. The amputations had been performed on account of elevated ulcers of the character presented in Dr. Ripley's case, and which had persisted for eighteen and thirty years, respectively, without exciting much discomfort beyond local irritation, and without causing any generalization of the disease or infiltration of the glands in the vicinity of the local lesion. From those cases, and from that reported by Dr. Ripley, he should assume that the tumors were not originally of a cancerous character; that they were first of a benign nature, and had gradually assumed a malignant form. He remembered one such case, where an Austrian officer had a large wart upon his back, which was constantly irritated by the strap which held his sword. That wart finally became ulcerated, and subsequently a very malignant cancer, which ultimately destroyed the life of the soldier. Certainly, it was against the experience of pathologists and clinicists that cancer could exist for sixteen, eighteen, or even twelve years, without killing the patient.

DR. RIPLEY, in reply to Dr. Gerster, related to a case which he had about twelve years ago. The patient came to him with a tumor of the mamma which she had had for eighteen years; but it had recently commenced to grow rapidly, and he amputated the breast, together with an axillary gland. The growth was carefully examined microscopically, and it was found to be true cancer, in which the original nodule had undergone extensive fatty degeneration, thus showing that the structure had taken on a retrograde action. He also referred to cases observed by Dr. Barker, in which epithelioma of the cervix uteri had been under observation for twelve years; and Dr. Emmet had also reported cases in which epithelioma of the cervix had existed eight, six, and four years. He did not dispute that such tumors may have been originally of some other character, but there was no evidence in his case that the disease had ever been anything else except cancer. He believed that there had been no proof in many cases that the so-called warts were simply warts. Many of them were not examined with the microscope, and they may have been malignant disease in a state of rest, and in that condition the patient carried them for years. He had operated upon a case in the Charity Hospital, three or four years ago, in which epithelioma had lasted for several years, when suddenly it began to grow very rapidly; then he removed it entirely, and at the same time a large portion of the parotid gland. After the operation, the patient gained in flesh and the wound healed almost completely, when the disease began to sprout out exuberantly, and carried off the man within a few weeks. Because a tumor grew slowly and then developed rapidly, that did not prove it was not cancerous from the beginning. At the same time Dr. Ripley supposed some tumors might change their character. He also wished to add that he believed with Billroth and other observers, that people did not get cancers from bruises or wearing sword-straps upon their backs, unless there existed in the constitution a tendency to malignant disease. Such irritants might develop carcinoma more speedily, but in those cases the cancer would eventually develop spontaneously..

Dr. Wylie referred to a case in which it was said there was cancerous disease of the cervix uteri for twenty years. The patient remained in exactly the same condition, and when only a few years ago he saw her, he diagnosticated laceration of the cervix, operated, and the wound healed kindly. He supposed that there was no cancer about it, but cancer afterward developed, was operated on, and, so far as he knew, the disease had not returned. He had seen very old cases of laceration of the cervix, in which there was no evidence whatever of cancer, and he had reached the conclusion that these lacerations did not produce cancer, although they might cause a very great amount of irritation. If persons were to have cancer, they would get it, whether they had laceration of the cervix or not. He believed that that had been proved satisfactorily.

Dr. Wyeth thought that it been settled that irritations did produce cancer; as, for example, in carcinoma of the intestines the disease appeared at those points in which the ingesta passed through very narrow openings, where thé greatest irritation was produced. Besides, the parts of the external body most subject to irritation were the most liable to cancerous disease. There might be a predisposition to the disorder, but he thought that it was an established clinical fact that irritation produced, as well as precipated malignant disease.

Dr. Ripley believed that the location of the disease might be decided by the irritation, but the cancer itself was not caused by the irritation.

Dr. Wyeth maintained that it had not been proven that predisposition to malignant disease always existed.

LABOR AT FULL TERM—SUBSEQUENT CONDITION OF THE PLACENTAL SITE.

DR. RIPLEY also presented the uterus, obtained through the courtesy of Dr. L. L. Seaman, chief of staff at the Charity Hospital, from a married woman, twenty-eight years of age, who gave birth to her second child, October 25th, 1881, at the Maternity Hospital. The labor was normal. The following history was furnished by Dr. Chas. H. French, house surgeon: October 31st, on account of fright, she suddenly sprang from her bed, and was quieted with difficulty; shortly afterward, she complained of intense pain in the lower part of the abdomen and back, and of severe headache. Poultices, morphia, and an ice-cap were ordered. On October 30th (day previous to the fright) her temperature was 100° F. in the morning and 101½° in the evening, and respiration 32.

October 29th.—Temperature, 100° F.; pulse, 88 to 96; respiration, 28.

October 28th.—Temperature, 100° F.; pulse, 80 to 90; respiration, 28 to 24.

October 27th.—Temperature, 98½ F.; pulse, 68 to 70; respiration, 20 to 24.

October 26th.—Temperature, 98½° F.; pulse, 72; respiration, 24.

October 31st.—Temperature in the evening, 104½° F.; pulse, 104; and respiration, 33.

November 1st.—Abdomen very tender, especially in the inguinal regions and lower portion. Thighs flexed at intervals; tympanites. Evening temperature, 104° F.; pulse, 132; respiration, 34. Morphia was continued. During the night the temperature fell to 102½° F., pulse to 120, and respiration to 20, but vomiting was a persistent symptom.

November 2d.—At 4 A.M., she had a severe chill, and shortly afterward her temperature reached 105¾° F.

She died at 7 A.M., November 3d.

Autopsy: made by the curator, Dr. Putzel. The body was well nourished. The heart normal. The entire lower lobe and a portion of the upper lobe of the left lung were in the red-hepatization stage of pneumonia. The spleen was large and soft. The liver was the seat of chronic insterstitial hepatitis. The kidneys were normal. The abdomen was tympanitic. The right Fallopian tube was inclosed in a layer of plastic exudation. The uterus reached as high as the top of the symphysis pubis: at the placental site there was an elevation four inches in diameter, and half an inch high; its surface was uneven, and presented a granular appearance.

Dr. Ripley exhibited the specimen with special reference to a discussion which occurred between himself and Drs. Garrigues and Watson, concerning the condition of the inner surface of the uterus at the pacental site a short time after labor, say one month (see BULLETIN, pages 230 and 231).

The appearance of the mass occupying the old placental site was very similar to that observed in the specimen presented by Dr. Watson, the variations being that it was a little larger, in some places thicker, and its surface more uneven. These differences were probably mostly due to the difference in their ages, one being a month old, and the other only eight days. From the few works on obstetrics which he had consulted, he had been unable to obtain any information in regard to this interesting question; but Cornil and Ranvier, in speaking of the changes which take place in the uterus following delivery, describe a granulating surface left after the expulsion of the placenta, which subsequently breaks down and is discharged; they think the process by which the parts at this point are regenerated, probably slow, and quote Slavjanski as having recently described papillary vegetations, analogous in structure to granulation tissue, in the uterus of a young woman, three months after delivery. Dr. Ripley was, therefore, of the opinion that these masses were mostly made up of granulation tissue, and not of retained placenta. In a medico-legal point of view, as was suggested by Dr. Watson's case, it was important to ascertain whether they were normal or abnormal. The specimen presented he regarded as cumulative proof of the correctness of his statement at a previous meeting that they were, at least, of common occurrence.

DR. BRIDDON referred to specimens presented to the Society by Dr. T. C. Finnell, in which there was uniformly an elevated and circular area of tissue at the placental site. They were specimens for the most part obtained after abortions, and Dr. F. furnished no evidence as to whether the masses were placental, or granulation tissue.

Dr. Wylie remarked that it had been claimed repeatedly that it was wrong to leave any placental tissue within the cavity of the uterus, and he asked Dr. Ripley if he thought it was a common practice to allow some to remain. He regarded the condition present in Dr. Ripley's specimen as one due to puckering of the tissue from uterine contraction, with subsequent granulation. It was improper to leave placental tissue attached, as it was very liable to give rise to hemorrhage, and possibly septicæmia.

Dr. Ripley was glad that Dr. Wylie had asked him the question, because it gave him an opportunity to correct an inference which possibly might be drawn from the tenor of his remarks made at the meeting alluded to—that is to say, it might be inferred that he did not believe in removing all the placenta: whereas his practice was most positive in that respect: if there was any evidence whatever that any portion had been retained, he invariably dilated the cervix uteri, if necessary, and examined with reference to that point.

The Society then went into executive session.

STATED MEETING, NOVEMBER 23D, 1881.

DR. THOS. E. SATTERTHWAITE, *President, in the Chair.*

DR. WESLEY M. CARPENTER, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1–3. Aneurisms of the innominate artery....By DRS. EDWARD L. PARTRIDGE, H. A. HEINEMANN, and V. G. CULPEPPER.

4. Aneurism of the ascending arch of the aorta, with excessive dilation of the aortic orifice..By DR. EDMUND C. WENDT.

5. Valvulitis deformans at the aortic orifice, with pneumonia. By DR. EDMUND C. WENDT.

6. Chronic perimetritis, etc., caused by a pessary worn and neglected for ten years......By DR. EDMUND C. WENDT.

7. Tumor of the cerebellum: alveolar glio-sarcoma. By DR. EDMUND C. WENDT.

Cases by DRS. MARKOE, ALONZO CLARK, ENOS, LOOMIS, and FINNELL.

8. Carcinoma of the breast.........By DR. ROBERT NEWMAN.

9. Myxo-sarcoma of the neck........By DR. JOHN A. WYETH.

10. Tuberculous degeneration of the lymphatic glands of the neck ....By DR. JOHN A. WYETH.

11. Pachymeningitis chronica....By DR. GEORGE L. PEABODY.

12. Cerebro-spinal meningitis, with acute endo- and pericarditis. By DR. HENRY N. HEINEMAN.

13. Well-marked signs of chronic cerebral disease, proceeding from congestion only of the pia mater and cerebrum. By DR. R. E. VAN GIESON.

14. Removal of gun-powder from the skin, without discoloration. By DR. B. A. WATSON.

15. Pneumonic phthisis, with early formation of cavities. By DR. BEVERLEY ROBINSON.

16. Typhoid fever : sudden death : ante-mortem heart-clot. By DR. BEVERLEY ROBINSON.
17. Thrombus of the pulmonary artery. By DR. FRED. D. LENTE.
18. Discussion by DRS. J. LEWIS SMITH, WENDT, and THE PRESIDENT.
19. Rachitis....... ....By DR. J. LEWIS SMITH.

ANEURISM OF THE INNOMINATE ARTERY.

DR. EDWARD L. PARTRIDGE presented the specimen with the following history: On the evening of November 9th, he visited the patient and learned that he had been in bed and confined to the house for that day only. He was hoarse, speaking with difficulty above a whisper, and coughed pretty constantly; his expectoration was quite profuse, muco-purulent, and suggested tracheitis in addition to catarrhal laryngitis. Auscultation, without inspection of the chest (as the patient was sweating, and the room chilly), showed slight bronchitis. His pulse was 90 ; temperature normal.

He attributed his illness partly to exposure, and to having talked more than usual at the time of the recent election. During the last eighteen months, he had had slight but frequently repeated attacks of hoarseness, and pretty constant cough. He had observed for some weeks that in the morning, on arising, his face was puffy, the right side being much more swollen than the left. There was no history of syphilis or rheumatism, and his age was thirty-four. He passed a restless night. His wife stated that in his sleep his breathing was noisy.

On the following day, inspection and careful examination of the thorax showed slight bronchial catarrh, involving the right more than the left lung. Some fulness could be observed above the clavicle to the right of the sternum ; and in and above this situation there was an extensive scar, which seemed to indicate the burrowing of pus which had attended a bullet-wound of the neck received in 1864. Palpation disclosed distinct pulsation at the upper part of the sternum, while the finger, pressed behind or just above the manubrium, appreciated a distinctly expansive pulsation. Percussion showed an area of dulness nearly four inches transversely, and two and one-half inches from above downward, bounded by the median line, and above by the clavicle. The heart-sounds were normal; no bruit was present anywhere. Pressure backward above the sternum greatly distressed the patient, producing a sense of suffocation. The radial pulses were weak, but showed no difference in time or force between the two sides. Pulse 110, temperature 101° F. His cough was followed by moderate expectoration, and had no harsh or ringing quality.

On the 11th he was much worse; pulse 160, temperature 100° F. At times there was slight blueness of the finger nails and of the face. The right side of the face was decidedly swollen, owing to interference with the return of venous blood.

On the morning of the 12th, his condition was about the same. Dr. Loomis, who saw him then, regarded the disease as aneurism of the innominate: the possibility of a tumor being admitted, but doubted. The interference with the respiratory function was probably from pressure of an aneurism upon the trachea. The right lung was congested, and signs of exhaustion were very pronounced. In the evening, his pulse was 120, but his respiration was very difficult and fatiguing. Dr. W. I. Bull, who saw him, felt that any operative procedure which would be necessarily difficult and prolonged was not worthy of consideration, and that the use even of an anæsthetic would be highly dangerous. Death occurred at 2 A.M., November 13th.

The *autopsy* and removal of the specimen was performed by Dr. Bull.

On removing skin, superficial fascia, and dividing the sterno-mastoid muscle, the upper portion of an aneurismal tumor became visible, extending two inches above the sternum, and from the left sterno-clavicular articulation to the junction of the inner and middle thirds of the clavicle on the right side. The specimen was removed *en masse*, and involved the innominate artery chiefly. Anteriorly it had produced erosion of the sternum, and the sterno-clavicular articulation was also exposed. Posteriorly it pressed against the trachea, the chief point of pressure being at a level with the origin of the right bronchus; the tracheal wall was extremely thin—one-eighth of an inch—and rupture would have certainly taken place at this point within a short time. The aorta was extensively atheromatous from its origin, and somewhat dilated. The heart was not much enlarged ; the cavity of the left ventricle was slightly dilated; the valves were sufficient, but each segment of the aortic valve was fenestrated.

Firm fibrinous layers occupied the upper and anterior parts of the sac.

INNOMINATE ANEURISM.

By Dr. H. A. Heinemann, *Candidate.*—A. S., æt. 42, English, married, manufacturer, was admitted to Roosevelt Hospital July 12th, 1877.

Two brothers and sisters had died of phthisis. He had never had rheumatism, but eight months ago began to complain of palpitation and an impediment in respiration. This difficulty in breathing at first occurred in paroxysms, but soon became permanent. Two months ago, he had an attack of pneumonia, and after his recovery found the difficulty in respiration increased. He has constantly a slight cough, and his breathing, which has been stridulous for some sime, has recently become more so. Two months ago the difficulty in respiration compelled him to cease work. His voice is hoarse at the time of the paroxysms, but natural in the intervals. Solid food is swallowed with difficulty. Has had no pain about the throat, and until two months ago no sensation of pressure, which since then has been constant at the level of the top of the sternum.

Is well nourished, but his appetite is poor, tongue dry, bowels regular. Physical examination by the house physician reveals: A few sonorous, sibilant, and coarse moist râles in the larger bronchi. Towards the trachea the râles become more abundant, and over the trachea the respiration is rattling and the râles loud in character. The apex-beat of the heart was outside of the mammary line in the sixth interspace. The heart-sounds were irregular, but no murmur was heard. Epigastric pulsation.

Laryngoscopic examination reveals chronic laryngitis.

Sept. 11th.—Since patient's admission to the hospital his principal trouble has been the peculiar difficulty of respiration, and he has also suffered much from laryngitis. These symptoms were better and worse alternately, but he has been up and about most of the time.

Sept. 15th.—Is generally obliged to sleep in the upright position, and has been restless and feverish for the past few nights; but his other symptoms continue as before.

Sept. 16th.—Is emaciating; complains of pain in the epigastrium ; is vomiting.

Sept. 19th.—Growing weaker ; raises considerable amount of frothy mucus.

Sept. 20th.—Was delirious last night. At 4 P.M. had a severe attack of dyspnœa, and then gradually became unconscious, and died at 7 P.M., Sept. 20th.

Autopsy.—Brain and heart normal ; aortic valves slightly atheromatous ; aorta very much so.

The *innominate artery* is the seat of a fusiform dilatation involving its whole length, and its walls are markedly thickened and atheromatous. At the middle third, the inner and posterior walls are distended into an aneurismal pouch which involves all the coats of the vessel. The communication between the main calibre of the artery and the aneurism is by an opening three-quarters of an inch in diameter. The aneurism is of the size of a pigeon's egg, and is partly filled by a clot composed of some organized fibrin and recent coagulum: it presses upon the trachea from before backwards and towards the left, bringing the mucous membrane of the opposite sides in contact, but leaving the membrane itself intact.

Trachea : The mucous membrane throughout is reddened and inflamed and coated with muco-pus.

Larynx : The mucous membrane is congested, inflamed, and coated by an abundant exudation of muco-pus. The left vocal cord is markedly thickened.

Lungs : The mucous membrane of all the bronchi is reddened and inflamed and coated by an abundant muco-purulent exudation, which in the smaller bronchi is sufficient to form a complete plug, and obliterate their lumen.

The pleuræ of both lungs are coated in places by a thin layer of recent fibrin and pus.

The lower portions of both lungs are in a condition of red hepatization, and scattered through the hepatized portions are small yellowish-gray nodules about half the size of a pea, arranged closely together, and with whitish centres.

Kidneys enlarged; hard and congested; markings lost; capsule adherent; weight 16 ounces.

Liver, spleen, and stomach normal.

ANEURISM OF THE INNOMINATE ARTERY COMPRESSING THE TRACHEA; CROUPOUS PNEUMONIA: LARYNGOTOMY FOLLOWED BY AMELIORATION OF THE SYMPTOMS: DEATH SIXTEEN HOURS AFTER THE OPERATION.

By DR. V. G. CULPEPPER, *Candidate.*—J. S., æt. 49, single, U. S., driver, was admitted to my ward in the Charity Hospital Oct. 3d, 1878. His father died forty years ago of delirium tremens; his mother and brother are both living and perfectly healthy. He is a man of large stature, and well nourished; but with an expression of anxiety and extreme suffering. One month ago, he was taken with a slight cough, accompanied by yellowish expectoration, and a feeling of general indisposition, but pursued his daily avocation until the 2d of October, the day prior to his admission. He never was ill but once before in his life, viz.: at 21 years of age, when he had an attack of enteritis. Denies all venereal diseases, and a close examination of body affords no evidence to render this statement questionable. Three days ago he had a chill, followed by fever, and accompanied by vague pains diffused over the chest. His eyes were dull, pupils normal, conjunctivæ injected, tongue clean and moist, bowels regular, anorexia present. He complains of being very tired over the pectoral region, this feeling being much exaggerated by the slightest exertion. He is perfectly rational. and articulates clearly. His posture is that of a person laboring under great dyspnœa, with his body inclined forward, his elbows resting on his knees, and his head supported by his hands. He responds to questions indifferently, his mind being concentrated on his breathing. The integument of his face and extremities is sublivid, and covered with a cold, clammy perspiration. Examination of his chest revealed restricted movements of thorax, marked increase in abdominal respiration, pectoral muscles standing out prominently, the upper intercostal spaces drawn in with every inspiration; respirations very short and fast, averaging fifty per minute; vocal fremitus scarcely perceptible above; and epigastric pulsation. Percussion elicits a resonance of wooden character over the lower portion of both lungs. Auscultation gives bronchial breathing below; large œdematous, with a few sibilant and sonorous râles above; voice-sounds heard very distinctly, they being bronchophonic over the lower portion of right chest. I examined his larynx, and became assured that his trouble was not located there, as there existed only slight congestion and thickening of the aryteno-epiglottidean folds with some thickening of the cords. Examination of his urine revealed nothing abnormal save a superabundance of phosphates.

Oct. 7th.—Breathing became much more labored, and he expectorated a large amount of watery fluid: the râles could be heard some distance from his body. His cheeks, nose, lips, and integument of extremities were cyanosed, and he had a craving for air. Temperature, 103¼°; pulse, 120, and respiration 40 per minute. I concluded that his only chance of life rested upon the introduction of a tube in his trachea, in the hope of reaching below an obstruction of undetermined nature in the neck.

Oct. 7th, 3 P.M.—I performed laryngo-tracheotomy; and all hemorrhages having been suppressed, I introduced a tube of large calibre; after which, although he was still unable to speak, an expression of satisfaction was evident: his face and extremities lost their lividity, and became warm and moist; and even when the outer end of tube was occluded, he stated that he felt comfortable, in fact, he had not felt better for a month. I carried out the necessary after-treatment, and nursed him through the night. He did well until 3 A.M., Oct. 8th, when more pulmonary œdema set in, water flowing rapidly from the tube, and foam from the mouth. I resorted to cups, diaphoretics, and subsequently to venesection: the blood flowed very slowly, was of dark color, and coagulated rapidly: but his condition improved.

At 5½ A.M., he had an attack similar to the above, and died sixteen hours after the operation.

Autopsy by Dr. Maxwell.—*Thorax:* While removing the sternum, the thin walls of an aneurism were cut into under the manubrium sterni to the right of the median line. The larynx, trachea, œsophagus, thoracic aorta, and heart were removed *en masse.* Examination showed a sacculated aneurism of the arteria innominata projecting anteriorly, causing erosion of the right upper and posterior border of the manubrium sterni to an extent of about one inch in its longest diameter, and a depth of about one-eighth of an inch. There was an erosion similar in in size and depth on the under surface of the sternal end of the clavicle, close to the sternal articulation; and another small spot on the upper surface of the right rib. The trachea was pressed from before backwards, and towards the left, so as to cause marked flattening and stenosis, which extended from one inch above the bifurcation of the trachea upwards for two inches. The tracheal rings were not eroded. The aneurismal sac is about three inches long, occupies the whole of the innominate, and contains heavy layers of laminated fibrin (one to one and a half inches thick) especially on its anterior and upper portions: the only portion which probably could have given any pulsation was posterior. The aortic orifice of the innominate measures three-fourths of an inch.

Larynx and Trachea: The larynx was filled with thick tenacious mucus: and shows the line of the operation for laryngotomy, the crico-thyroid and the body of the cricoid cartilage being divided. The laryngeal cartilages are markedly calcified. The left true vocal cord is thickened, firm to the feel, and appears to have been the seat of recent inflammatory exudation (probably caused by the operation, as the upper border of the laryngeal wound runs to the left of the median line, and is scarcely more than three-eighths of an inch from the left vocal cord). The wound presents a healthy appearance. The mucous membrane of the trachea simply shows intense congestion.

Heart and Aorta: The pericardium contained ℥ss. of clear, straw-colored fluid. The heart is increased in its transverse diameter and flattened; its apex rounded; there was an increased deposit of fat over the surface of its right side: the muscular walls are yellowish-brown in color, and dotted with yellowish spots and striæ. The thickness of the right ventricle is less than one-fourth inch; and the left, in its median portion, three-fourths inch; the apex, three-eighths inch. The heart cavities contained only a small amount of dark, semi-fluid blood. The auriculo-ventricular orifices are large. The valves upon the left side show only little atheromatous patches scattered here and there. The aorta, at its commencement, is somewhat dilated, most so up to the point of origin of the left carotid; and throughout its whole extent it is the seat of a marked chronic endarteritis (atheroma).

Lungs: The pleural cavities contain each about 3 oz. of blood-stained, passive effusion. Underneath a large cup-mark on the lower and anterior portion of the thorax, the left side of the pleura shows three subpleural hemorrhages.

Right lung: Small patches of fibrous exudation on the under surface of the lower lobe: the whole of the middle and all of the lower lobe, exept a small spot at the upper border, are consolidated by croupous pneumonia, mostly in the stage of gray hepatization. The remaining portions simply show congestion and œdema.

Left lung: The lower lobe nearly consolidated by hypostatic pneumonia, mainly in the red stage, except a few spots which are in the gray stage. The rest of the lung is congested and œdematous.

Bronchi: Mucous membrane reddened and bathed in thin muco-pus. Bronchial glands considerably enlarged, pigmented, and indurated.

Abdomen: Liver about normal size, with local thickening of its capsule; parenchyma firm and pale.

Spleen: Slightly enlarged; pulp of reddish-black color, and considerably softened.

Kidneys: Slightly diminished in size: capsules fatty and adherent, difficult to remove, and bringing away portions of cortical substance with them. Their surfaces are granular, with scattered depressions and are also dotted with cysts varying in size from a pea to a head of a pin. On section, they show irregular atrophy of the cortical substance; the columns of tubules are deformed and of deep-yellowish color. There is an appreciable increase of connective tissue between the columns of Ferrein. The pyramids are apparently diminished in size and of deep-reddish color.

Stomach and intestines: Mucous membrane shows scattered patches of arborescent congestion.

NOTE.—In Vol. I. of the Transactions, pages 144 to 156, seven cases of aneurism of the innominata are reported. See also BULLETIN, pages 51, 73.

ANEURISM OF THE ASCENDING PORTION OF THE ARCH WITH EXCESSIVE DILATATION OF THE AORTIC ORIFICE AND SEMILUNAR VAVES, WITH GREAT ATTENUATION OF THEIR CUSPS.

DR. E. C. WENDT presented a specimen from a man, aged forty-eight, who had died at St. Francis Hospital. The history was of interest, as the symptoms and physical signs had not been sufficiently characteristic to make the diagnosis of aneurism possible during life. A prominent symptom indeed had been the presence of a loud and blowing systolic murmur, most distinctly audible over the base of the heart and projected into the carotids; but this had led merely to the recognition of aortic valvular disease, without establishing the existence of aneurismal dilatation.

At the *autopsy*, the first thing to attract attention about the heart was excessive dilatation of the coronary veins, which appeared in some places as thick as a finger. The left ventricle was much hypertrophied, and greatly dilated. The cusps of the semilunar valves were extremely attenuated, looking as if the least additional strain would have resulted in their rupture; they were also very much stretched, to accommodate themselves to the widened orifice. The cusp immediately above the posterior mitral flap measured two inches at its free border, but the adjoining cusps were only one inch long: this inequality of length was a noticeable feature of the case.

The right ventricle looked like a mere appendix of the left, and the disproportion between the amount of blood that these cavities could have held must have been very great, even during the life of the patient.

The aneurism was not of itself sufficient to lead to hypertrophy of the ventricle; hence it was probable that the aortic insufficiency had antedated the development of the former. Extensive atheromatous changes doubtless were the causative factors of both morbid alterations.

NOTE.—In Vol. I. of the Transactions, pages 106–127, 34 cases of aneurism near the heart are reported; and pages 137–144, 9 cases of aneurism of the ascending aorta.

VALVULITIS DEFORMANS AT THE AORTIC ORIFICE—LOBAR PNEUMONIA—SUDDEN DEATH.

DR. WENDT also presented a specimen with the following history:

H. L——, aged thirty, a German waiter, was admitted to the St. Francis Hospital, in the service of Dr. Lellman, November 3d, 1881. He had been addicted to the excessive use of alcoholic drinks for many years: had had an attack of articular rheumatism, which confined him to his bed for two months, about three years ago; and ever since has been subject to dyspnœa, both spontaneous and after exertion, and to occasional attacks of palpitation. Otherwise he looked in robust health, being a man of exceptionally powerful physique, and almost an athlete in build.

Five days before admission, he was seized with a severe chill, and soon developed the symptoms of a croupous pneumonia affecting the lower lobes of the left lung, the physical signs of which were especially marked posteriorly. At midnight, on the evening of his admission, his temperature was 104°, pulse 110, and respiration 40. A loud, long-drawn systolic murmur was distinctly audible over the apex of the heart, but the cardiac rhythm did not appear to be disturbed. The pulse remained of poor quality, however, in spite of appropriate treatment.

On the following morning, his temperature had fallen to 101°, and he appeared to be quietly sleeping; but later on, in course of that day, on attempting to give him some stimulants, a peculiar expression of his countenance attracted the attention of the attendants, and a few minutes later he suddenly fell back in his bed, and died in sudden collapse.

An *autopsy* was made on the following day by Dr. Wendt. The abdominal organs showed only the ordinary changes referable to venous congestion.

The lower lobes of the left lung were in the gray hepatization stage of croupous pneumonia; but this did not extend to the anterior surfaces, and was most marked behind.

The left ventricle of the heart was greatly hypertrophied, but only slightly dilated. The aortic valves were transformed into a rough, misshapen ring of rigid tissue, containing calcareous deposits: the individual cusps could not be differentiated one from the other, and between them there existed only a narrow slit, barely admitting the tip of the little finger. The other valves appeared normal.

Dr. Wendt thought the case interesting, because it again forcibly illustrated the lurking danger of sudden death from some intercurrent disease in chronic valvular lesions: even when marked disturbances of compensation had given no premonition of impending peril. Of course, sudden deaths, especially in aortic mischief, were not very uncommon, and might occur without any intercurrent disease. The generally accepted explanation was over-distention of the left ventricle, leading to speedy cardiac paralysis: but such an interpretation would hardly apply in this case. He thought that the sudden disturbance of a previously fairly regulated compensation was directly owing to the pneumonia which, though not extensive, had nevertheless taken the system by surprise as it were, and thus brought about a rapidly fatal termination.

Finally, he wished to give his reasons for the use of the term "*valvulitis deformans.*" He was not aware that it had been previously employed, and, although word-coining was a rather reprehensible practice in medicine, yet this compound word seemed to him an eminently proper one. It was a concise anatomical expression, indicating a localized lesion. It might appropriately be used for all endocarditic processes involving or confined to the valves, and producing a real deformity in their shape, as was the case in the present instance.

NOTE.—See Vol I. of the Transactions, pages 199 to 210.

CHRONIC PERIMETRITIS AND VAGINITIS, WITH PURULENT VESICAL CATARRH, AND POSSIBLY PHTHISIS, CAUSED BY A PESSARY WORN WITHOUT INTERRUPTION FOR TEN YEARS, AND FIRMLY ATTACHED TO THE CERVIX BY A BRIDGE OF NEW TISSUE.

DR. WENDT also presented the uterus and its appendages, with the pessary still in situ. The history had been furnished by Dr. Haig, house physician of the St. Francis Hospital.

M. D——, aged thirty-nine, Irish, a widow, was admitted to the St. Francis Hospital October 28th, 1881; in the service of Dr. Lellmann. She had suffered from rather obscure uterine symptoms for many years, and about ten years ago a pessary had been introduced, which had not been removed since. Last May she began to suffer from occasional attacks of fever, with loss of flesh, failing appetite, and slight cough. She grew progressively worse, and on admission to the hospital had great prostration, but no fever. There were some rather ill-defined pulmonary symptoms; and a tendency to diarrhœa, with very offensive stools. There was little discharge from the genital tract, but a vaginal examination revealed the presence of a pessary, which was firmly lodged high up, and all attempts to remove it proved unavailing, as it seemed to be firmly attached to the uterus. She grew steadily worse, and died, apparently exhausted, on the 4th of November, at 1 P.M.

At the *autopsy*, which was made on the following morning, moderately extensive lesions of a catarrhal phthisis were found; the apex of the left lung was transformed into a cheesy mass, but breaking down was nowhere seen.

About the uterus, and especially posteriorly, the evidences of repeated attacks of perimetritis were visible. In the vagina, a pessary was securely lodged, which had a roughened surface, and showed incrustations at several points. The vagina below the pessary was much contracted, and a bridge of firmly organized tissue helped to secure the instrument firmly in its position. This bridge was about half an inch wide, several lines in thickness, was situated exactly in the median line, and extended from the posterior surface of the cervix over the pessary to the wall of the vagina.

The uterus showed no flexion, but looked small and atrophic. Tubal dropsy existed on one side. The ovaries appeared normal. The bladder was contracted, and contained about two ounces of thick, purulent fluid.

In this case, no doubt could exist that whatever condition had originally prompted the introduction of the pessary, its presence in the vagina for so many years had had a highly deleterious effect upon the patient, both locally and constitutionally. It had unquestionably favored perimetritic processes, was probably the sole cause of the existing purulent vesical catarrh, and possibly of the phthisis, while the discharges incident to its prolonged presence had been a constant drain upon a constitution already weakened. The practical lesson to be derived from the study of this case was to the effect that too much care could not be taken in impressing upon the minds of ignorant patients the necessity of occasionally removing pessaries, if the use of such instruments was to be persisted in for a long period. Probably the patient's life had been materially shortened by negligence in this respect.

TUMOR OF THE CEREBELLUM (ALVEOLAR GLIO-SARCOMA).

DR. WENDT also presented a brain with the following history, furnished by the house physician, Dr. Haig: James D. S——, forty-two years of age, U. S., married, and a carpenter, was admitted to the service of Dr. Lellmann, at the St. Francis Hospital, July 14th, 1881. His family history was unimportant. He had led a pretty fast life when a young man; has been a rather hard drinker; has never had rheumatism or malaria; but had contracted a chancre twelve years ago, not followed by eruptions, loss of hair, or sore-throat. In 1864, while engaged on a war-transport, he was struck on the top of the head by a large piece of coal, and remained unconscious for nearly four days, after which he was able to gradually resume work without any feeling of distress in his head. The spot where he was struck is now marked by a deep cicatrix. About three years previous to admission, he gradually lost his hearing on the *right* side : it was some weeks before the deafness was complete.

He was comparatively well up to two months ago, when he had vertigo with nausea, but did not suffer enough to confine him to his bed at once. Somewhat later he felt so weak that he was obliged to remain in bed ; but then had no marked vomiting or headache. During the past six weeks he has eaten little, and has lost much flesh and strength, without pain or tenderness over abdomen. On admission to the hospital, he was quite anæmic, very much emaciated, and was so weak that he was unable to walk. No disease of heart, lungs, etc., was discoverable. He complained of nausea, but no vomiting ; the abdomen was slightly retracted. Respiration, 26; pulse, 100, weak but regular. Urine alkaline; specific gravity, 30: repeated examinations of it failed to show any abnormal constituents.

The treatment consisted of tonics and a liberal diet, and he seemed to improve for three weeks, when he was able to go about the wards and assist in light work ; but about this time he began to complain of his *left* ear, and was soon unable to hear, unless spoken to loudly. His ear was examined, and considerable inspissated cerumen removed: it was syringed daily with tepid water, but the hearing did not improve, and in about three weeks was entirely lost on the *left* side. He was then put upon the iodide of potassium.

August 3d.—Complains very much of pain in his head, principally along the frontal region; but also of some at the posterior portion, just above the nape of the neck, and it was so severe that it prevented him from sleeping. When walking he would stagger from side to side, and appeared to incline more to the right side than to the left; and was quite unable to stand still when he had his eyes closed. His abdomen was slightly retracted. Pulse

110, weak, but regular. Has full control over the bladder and rectum, and also over his muscles while in bed, where he was able to move his limbs in all directions. His appetite is very poor. Pupils somewhat dilated, but react well.

August 10th.—Remains about the same, except the abdomen is more retracted, the pulse is slightly increased, and pain has to be controlled by opium.

August 17th.—Abdomen more retracted, "boat-shaped." Pulse 120. Respirations vary from 8 to 14: some are short and shallow, while others are deeper, and at varying intervals he will stop breathing for nearly half a minute. Complains very much of his head, also of pain in his stomach.

August 24th.—Somewhat better as regards the pain in his head; pulse remains at 120 to 130; respiration, 13; abdomen still markedly retracted. Has power to move all his muscles while in bed, but is so weak that he is unable to walk. Urine and fæces passed normally.

September 3d.—Pain in head entirely gone: sleeps well: appetite good. Abdomen still retracted. Pulse, 130, weak but regular.

He continued as above-described until about October 1st, when the pain in his head returned with increased severity: pulse, 130: respiration, 7 to 14. The headache is so intense that it has to be controlled by opiates. Has had no paralysis of any of his muscles, but cannot walk: he is too weak. Is very much emaciated, and unable to digest much food. Pupils still equally dilated on both sides. Is constantly handling his penis which is very much inflamed. Has several bed sores on his sacrum and thighs.

October 10th.—Began to develop pulmonary œdema. Pulse, 140; respiration, 10 to 13; abdomen very much more retracted than formerly. Incontinence of urine and fæces. The œdema and congestion of the lungs increased until October 15th, when he died.

In view of the peculiar symptom-complex, *i. e.*, the auditory disturbances, slow and irregular breathing, staggering gait, and other manifestations, a diagnosis of cerebellar tumor was made during the life of the patient. Dr. Lellmann decided to give him the benefit of a doubt as to the specific nature of the neoplasm, and it seemed at first as if antisyphilitic treatment was attended with a decided amelioration of the morbid phenomena. Subsequent events, however, showed that the tumor was not a gumma, but an alveolar sarcoma, and, consequently, the improvement was temporary only, by the removal of congestion or œdema about the growth.

At the *autopsy,* no noteworthy changes in the organs of the trunk were discovered. There was profound anæmia, and emaciation incident to long suffering. On removing the calvarium, the dura mater appeared normal: the longitudinal sinus contained a thick clot of blood, and the other sinuses were filled with dark blood. The pia mater, especially of the convexity, and particularly in front, was somewhat thickened, opaque, and excessively vascular: some abnormal adhesions also existed between it and the cerebral substance. In other respects the cerebrum appeared healthy.

The left lobe of the cerebellum was almost entirely replaced by a neoplasm of a pale-pinkish color, and rather firm consistence. Externally, however, the configuration of the parts was not much altered, as a covering of apparently healthy cerebellar substance hid the growth from view, except at the under surface and adjoining the medulla oblongata. Further examination revealed the fact that the tumor was distinctly circumscribed, surrounded by what appeared as a thin capsule, while a gelatinous substance separated it from the pons and medulla. Partial destruction of the processus ad pontem and the processus ad medullam was seen. The portions of the cerebellum which remained intact, or were only mechanically altered by compression, were a layer above the horizontal fissure, and some of the superior portions of the square and semi-lunar lobes.

On cross section, the fleshy hue of the growth was seen to be offset here and there by paler areas, and the whole surface was sprinkled over with dots and streaks of a red color. Breaking down had taken place in a few places, giving the growth a spongy appearance in those localities.

Microscopically, the tumor was ascertained to belong to the glio-sarcomata: but its structure was not in all respects a typical one. The rounded corpuscles, about half as large again as leucocytes, which made up the main bulk of the sarcoma, were in many places arranged in groups of a distinctly alveolar appearance: these aggregations of cells also had very plainly a surrounding reticulum of not very thick connective tissue. Some parts of the tumor were constituted almost exclusively of these round cells, although even there a delicate fibrillar stroma could be discovered. The abundant supply of blood-vessels within the neoplasm showed no uncommon feature, save, perhaps, the great thinness of the vascular walls.

Finally, it may be stated that a careful naked eye and microscopical examination of the cerebral and cerebellar blood-vessels revealed no syphilitic alteration.

NOTE.—About twenty cases of tumor of the cerebellum are to be found in the earlier manuscript records of the Society. Most of these were collected and presented to the Society by Dr. John C. Peters, and abstracts of them published in the *Record* and *New York Journal of Medicine.*

CASE II.—CYSTIC TUMOR OF THE CEREBELLUM.

By DR. THOMAS M. MARKOE, June 28th, 1854.—A girl, æt. 14, when eleven years old, began to have attacks of sick headache about every four weeks. She recovered by going to the country, but relapsed on returning to the city and going to school. When thirteen years old, she was noticed to have slight hesitation and difficulty in walking, and her headaches became more frequent and severe, lasting four or five hours and attended with persistent nausea and retching; still she seemed comparatively well during the intervals. During the last five months of her life she had convulsive attacks every four or five days, being also comparatively well during these intervals. Then she had a severe attack of convulsions, lasting four days, from which she seemed to recover perfectly, with her intellect unimpaired; but in a succeeding paroxysm she died comatose.

Autopsy.—There was a spheroidal tumor on the upper part of the cerebellum, pressing through the fourth ventricle down upon the medulla oblongata. The tumor was made up of a fibrous cyst, containing a jelly-like substance. There were also six ounces of serum in the ventricles.

In this case, the pains and convulsions seemed to have been produced by irritation of the sensor and motor tracks, and death from the serous effusion caused by pressure on the venous sinuses. It is remarkable that a tumor so near the floor of the fourth ventricle should have produced so few constant symptoms: for all tumors of the brain are liable to produce softening of the tissues in the immediate vicinity, and are commonly accompanied by an effusion into the ventricles; and to these conditions we may probably refer most of the symptoms observed during life, and the relief afforded by remedies. The presence of tumors of the brain is often not discoverd until the death of the patient from disease of some other organ, and where they had maintained a quiescent state, the cerebral tissue in the vicinity exhibits no trace of degeneration.

CASE III.—CYSTIC TUMOR OF THE CEREBELLUM.

A lady, aged thirty-four, had severe and long-continued pain in the head from which she recovered, but relapsed again about six months before her death, with very acute pain on the *right* side behind the ear. Occasionally, and especially when she moved her head, she had intense paroxysms which caused her to scream. At other times she was almost free from suffering, but often had great irritability of the stomach and costiveness. There was deafness of the *right* ear, but no impairment of sight. Blue pill relieved for a time; then a relapse was relieved by belladonna or Indian hemp, but especially by morphine. Finally a a severe paroxysm of pain was followed by sudden death.

Autopsy.—There was a cyst of the size of a small hen's egg in the *right* hemisphere of the cerebellum, containing a clear yellowish fluid. It was lined with a delicate membrane.

CASE IV.—CYSTIC TUMOR OF THE CEREBELLUM.

In a man, aged thirty-two, who had most intense pain, chiefly in the *right* side of his head, for six weeks. He had great difficulty in turning or moving his head; his *right* eye was imperfect; there was weakness, but no great loss of power or feeling in his limbs. His mouth was touched by the use of blue pills, with great relief, but he died suddenly while eating his dinner.

Autopsy.—There was a cyst of the size of a pigeon's egg in the *right* side of the cerebellum, imbedded in, and almost covered by, cortical substance. Its walls were thin and vascular, and it contained a thick, yellowish, clear fluid. A clot of blood filled about three-fourths of it, probably coming from hemorrhage from ome of the delicate wall-vessels.

CASE V.—CYSTIC DISEASE OF THE CEREBELLUM.

By Dr. Enos.—A bookkeeper, aged forty-five, was first seen five years ago, complaining of an inability to guide his *right* hand in writing, which finally increased so that he was forced to give up his situation. Shortly after he began to lose control of his *right* leg, and in his attempts to walk would act as if intoxicated. His vision soon began to fail. Then he had severe pain on the *left* side of his head, behind the ear, which was relieved by counter-irritation. He had been somewhat deaf for years. He was then lost sight of for three years, and Dr. E. was again called, but he found him already dead. His body was quite œdematous; but it was said that his intellect, and power of walking had seemed to improve towards the close of his life. He had had but one convulsion, two or three hours before his death.

Autopsy.—Nearly the whole of the *right* side of the cerebellum was occupied by cysts. Towards the crus cerebelli there was a hard spot and some cheese-like substance resembling tubercle. There were two ounces of fluid in each ventricle, the cornua of which were obliterated, and a large portion of the white substance of the brain seemed to be deficient or absorbed.

Dr. Alonzo Clark said that he showed one and one-half years ago a large cyst, occupying a considerable portion of one of the lobes of the cerebellum. The patient, though she could walk about, and generally with considerable firmness, would every now and then become unsteady and would have to seize something to prevent herself from falling. The unsteadiness seemed to be produced by an uncontrollable action of the muscles always of one side. She would roll out of bed always in one direction, and when the nurse placed that side of the bed against the wall, this accident did not recur. This was the patient that died during or soon after the administration of ether. In the specimen presented by Dr. Markoe, some three or four years ago, in which there was disease of one of the lobes of the cerebellum, the "turning," which was quite a noticeable feature in the case, was always confined to the muscles of one side.

CASE VI.—A POSSIBLY MYXOMATOUS CYSTIC TUMOR OF THE CEREBELLUM AND CRUS CEREBELLI.

By Dr. Alonzo Clark, April 27th, 1859.—A girl, aged twenty-one, had suffered for two or three months with frequently recurring attacks of intense sick headache, with excessive nausea, vomiting and vertigo, lasting for twenty-four or thirty-six hours, and then leaving her comparatively comfortable, but with a dull pain in the head and some dimness of vision. For five or six weeks before her death she had some unsteadiness of gait, and marked irregularity in the movements of her hands; and frequently rolled out of bed, always to the *left* side, which was prevented by placing her bed against the wall. She had a dull, stupid expression; marked double vision, and the sight of her *right* eye was impaired. She had inhaled two or three ounces of ether on three successive occasions to relieve the severity of her headaches, but on the fourth trial her respiration suddenly stopped, and all efforts at resuscitation were unavailing.

Autopsy.—A cystic tumor was found on the *left* lobe of the cerebellum, three inches long, two and one-half inches wide, and three-fourths of an inch thick, which resembled in shape a large oyster; it contained a jelly-like substance, uniform in its composition, semi-transparent or hyaline basement substance, interspersed with numerous small cells, some with large and others with smaller nuclei. The cells appeared so nearly transparent that the whole mass seemed to be composed of nuclei alone. The whole was quite vascular, as is common in soft malignant tumors, and it looked much like colloid. There was no nerve structure in it, and it was mainly developed in the white substance of the cerebellum, covered over by an investment of the cortical portion. It also projected into the crus cerebelli and pressed upon the medulla oblongata, the inferior portion of the fifth ventricle, and the calamus scriptorius.

NOTE.—According to Wilks and Moxon, myxomatous tumors of the brain are not uncommon; while Virchow states that they occur very often in the nerve substance, or rather in the soft neuroglia which is allied to mucous tissue. They occur as large tumors of a soft, gelatinous consistence, and by the resolution of their central part they may break down into cyst-like cavities, full of slimy fluid. In some instances they seem to be congenital.

According to the same authorities, cystic tumors of the brain are very rare and the recorded cases are few. They report a remarkable primary one of the cerebellum, as large as a small apple, with a little mass of well-formed carcinoma on one side of it. They quite clearly traced the cysts to the widening of the spaces caused in the tumor by extravasated blood, and remark that it is curious that cysts should occur at all in a part like the brain, which possesses no elements whose dilatation could form them.

C. L. Fox says: serous cysts, apart from those attached to the meninges and choroid plexus, have been met with in the brain, cerebellum, and pons. They are generally solitary and composed of two or three layers of serous, fibrous or cartilaginous tissue, and are made up of connective tissue, fibrous and fibro-plastic elements, and contain in their structure, or on their internal surface, amyloid bodies, cholesterin and crystals of triple phosphate. The interior may be lined with an epithelial expansion.

Ogle found thirty-two cases in which cysts occupied some part of the brain, five of which were in the cerebellum, one in the medulla, and one in the pons, and also reports a case in which the posterior cornu of the lateral ventricle was cut off, forming a cyst.

Hydatids in the form of echinococci are occasionally met with in the substance of the brain: a very large one was found in a young girl. When one is present in the brain, another hydatid is usually found in the liver, but it is not always so. Echinococcus occurs more often in early life, and the cysticercus in older people.

Hydatid cysts are mostly met with in young persons from ten to twenty years of age; but serous cysts, neither originating in hæmorrhage nor due to parasites, are of very rare occurrence.

Dermoid cysts have also been found in the brain. Sir James Paget found a dermoid cyst containing fat, with short stiff hairs, in the cerebellum of an elderly man, and Förster a compound one on the left cerebral hemisphere, containing hair, cartilage, bone.

CASE VII.—TUBERCLE OF THE CEREBELLUM.

By Dr. Alonzo Clark, March 25th, 1863.—James Callahan, aged twenty-two, native of Ireland, and by occupation a laborer, entered Bellevue Hospital, April 27th, 1863, exhibiting the usual symptoms of tuberculosis, together with some indications of cerebral excitement.

April 28th.—Is delirious and restless; throwing off the bedclothes and attempting to get out of bed, but is easily restrained. The usual treatment for secondary meningitis was at once adopted, without avail. In the latter part of the day he became lethargic, then comatose, and died in a state of full coma early in the morning of the 29th of April.

Post-mortem.—April 30th, about thirty hours after death.

Brain.—Congestion of cerebral vessels on the upper surface of both hemispheres—opacity of the arachnoid along some of the vessels—serous effusion beneath the arachnoid; serum in both ventricles, about ℥ iij. in the two together.

Cerebellum.—*Right* lobe softened, and in the midst a cheesy-looking substance, opaque, yellowish-white, and hard when compared with brain matter in a natural condition.

Lungs.—Tubercles at the apex of the left lung, and a cavity. Inferior lobe of the right lung infiltrated with tubercle.

Spleen.—Enlarged and nodulated, each nodule containing a cheesy-looking substance, which proved to be tuberculous. The right kidney weighed between six and seven ounces avoirdupois, and exhibited a cyst within it, lined with a gritty material.

CASE VIII.—TUBERCLE IN THE CEREBELLUM AND CRUS CEREBELLI WITH CEREBELLITIS.

By Dr. Thomas M. Markoe, January 28th, 1857.—A male child, aged four years, after an attack of cholera infantum in early life, had violent convulsions of the arms and legs, followed by recovery. When two years old, he began to have paroxsyms of shaking his head from side to side, and also spells of turning around. He would often stop in his play, and turn slowly round and round, with his eyes turned up. He sometimes seemed to have an uncontrollable desire to turn around, and would often slip away in some retired place to do so; still he could stop it, if reproved, although the inclination would persist for some days at a time, and recurred repeatedly, until a few weeks before his death. When nearly three years old, he had a stupid state, was very dull, stammered, and had a vacant stare for three weeks, when he almost completely recovered. Next he had turns of screaming at night, sometimes for hours together. About seventeen days before death he was seized with remittent fever, apparently of the tuberculous variety, and died comatose, with dilated pupils and other signs of acute hydrocephalus.

Autopsy.—The ventricles were greatly distended with serum and their walls softened to a pulp. The arachnoid was raised up by turbid serum, and there was sero-pus on the upper surface of the cerebellum. A small tubercle, one-half inch in diameter, was found on the surface of and partly imbedded in the substance of the cerebellum, pressing upon the crus cerebelli.

Note.—This case exemplifies the opinion of Messrs. Tonnelli, Leveiler, and others, that tubercles in themselves do not give rise to many or constant symptoms, but that the cerebral disorders accompanying them are exclusively due to intercurrent irritation, secretion, or inflammation. Dr. Baly reports the case of a young man, who seemed well up to December 30th, when in a few days he was attacked with headache and died on January 19th, with all the signs of an acute cerebral affection: two large tubercles were discovered in the left hemisphere, and as many as fifty in the right, about the size of a barley-corn. Tubercle of the brain is a disease specially incident to childhood, and usually occurs in the yellow variety, of a sulphur color, or that of soft yellow cheese. Of four hundred and seventy-two tubercular children, eighty-seven had tubercle of the brain. Cruvelhier never met with a case in adults, and Lugol had only seen eight cases, in none of which were any brain-symptoms manifest during life. Of ninety-one cases, fifty-two occurred in boys and thirty-nine in girls.

Tubercles are often met with in the cerebrum and cerebellum at the same time, and Jones, Sieveking, and Payne think the number of cases in which it occurs in one or the other alone is about equal. The pons is, in rare cases, the only seat of the deposit.

Wilks and Moxon believe that the larger tumor of tubercle in the brain is a primary disease; that they are more frequent at the base of the brain than elsewhere, and are most commonly met with in the cerebellum, which is their favorite seat. It is truly astonishing how great a destruction of the vital parts of the brain may be insidiously effected by these chronic large tubercles. Their average size is that of a chestnut, but sometimes they rival that of a large potato. In one case the pons was occupied in its central part to such an extent that the remaining tissue formed only a delicate, scarcely continuous film around it, when death occurred.

Dr. E. L. Fox says, tubercle prefers the hemispheres and cerebellum, being seldom found in the thalami and striata, and only exceptionally in the pons and medulla. In ninety cases, Ogle found twenty-three connected with the pia mater, twenty-seven in the substance of the brain, twenty-eight in the cerebellum, one in the left crus cerebelli, four in the medulla, and five in the pons.

Outside of the tubercle is generally a red zone of soft tissue, often very delicate, so that the tubercle may easily be turned out; and for an inch or so all around the brain-tissue may be in a state of yellow softening.

CASE IX.—TUMOR OF THE CEREBELLUM.

By Dr. A. L. Loomis, 1862.—In a man, aged thirty-five, who seemed to have typhus fever; he lay on his back and could not turn himself; his pulse was 160; there were no signs of brain disease, and his death was sudden.

Autopsy.—The membranes of the brain were dry. The right lobe of the cerebellum was the seat of a tumor of the size of a small orange, covered with brain substance one-quarter of an inch thick. It was composed of granular matter, nucleated cells, and free nuclei, with crystals of cholesterin, and much fibrous matter. The tumor did not destroy the substance of the cerebellum, but merely displaced its fibres; if it had grown large enough to compress the cerebellum, it would also have pressed upon the medulla oblongata and given rise to serious symptoms. In another case of tumor of the pons, the patient could move well enough while looking straight forward, but if he turned his head suddenly, he fell. In this case, as in many others, there was no want of co-ordination; but in two other cases of tumors of the cerebellum there was. Also in the case of a boy kicked, by a horse, on the back of the head, there were tonic spasms for ten days, followed by loss of co-ordination on the left side; if he wished to pick up anything to the left, he was compelled to turn himself completely around by the right. There was softening of two-thirds of the cerebellum.

SYPHILITIC TUMOR.

No cases of SYPHILITIC tumor of the cerebellum have been presented to the Society, but it must be remembered that when caseation has taken place, the distinction from tubercle is often rather difficult. Syphilitic gummata consist in great proportion, either of fresh granulation tissue, or of a fibrous mass, in which the caseous portions are inconsiderable, and they never soften in the centre.

It is also difficult to distinguish syphilitic growths from some forms of sarcoma and glioma when in the condition of fatty degeneration.

CANCER.

No case of cancer of the cerebellum seems to have been presented; although next in frequency to tubercular deposit, all forms of cancer, except the epithelial variety, have been found in the brain. In forty-three cases reported by Andral, thirty-three were in the cerebral hemispheres, only five in the cerebellum.

MELANOTIC CANCER.

Simple pigmented growths do not seem to occur in the brain, all being of the strictly cancerous or sarcomatous kind.

SARCOMA

is generally of the spindle-celled variety, and, like cancer, is generally seated in the central ganglia of the brain.

GLIOMA

is regarded by Wilks and Moxon as the proper tumor of brain-tissue. It has no capsule, but penetrates into the tissues around, and is very liable to undergo successive hemorrhages, leading to the formation of false cysts.

Fibrous tumors are exceedingly rare, and simple fatty tumors are only found in the choroid plexus.

Cholesteatomata may originate in the cerebral substance itself, but they most commonly spring from the membranes of the brain; they may attain the size of a walnut or goose egg.

CASE X.—CONGESTION OF THE CEREBELLUM.

By **Dr. T. C. Finnell**, December 28th, 1870.—The patient, a cabinet-maker, aged thirty years, was seized with a violent pain in the back of his head, but worked all day and only consulted a physician in the evening. Cathartics were given, and acted freely; he worked all the next day, but suffered terribly from the pain in the back of the head. Opium was given that night, and bromide of potassium the following night, the man working all day. He worked also on the fourth day, but was very ill that night. His tongue was heavily coated, the pulse eighty, but the physician thought there was very little the matter with him; fifteen minutes after he fell over and died. The autopsy revealed intense congestion of the cerebellum in all its parts, with much effusion in both lateral ventricles, there being four ounces of fluid in each. Death was caused by sudden effusion into the cavities of the brain. Dr. Finnell remembered only one other case of the kind. The man was ill only six days, and except the pain in the head, was seemingly in the best of health.

Dr. Jacobi remarked, in regard to the congested cerebellum, that the central parts were very much softer than the outer portions, which would seem to prove the disease had been of longer duration than was supposed. The pons was also much softer than some portions of the cerebellum, showing that there had been encephalitis of some standing. The fact that the large ventricles had been changed in shape to such an extent showed the effusion to be not very recent.

Dr. Finnell thought it remarkable that the man should have continued work until the day of his death.

Dr. Jacobi said that such cases often dropped down suddenly. The majority of the above cases terminated suddenly, so that even the case supposed to have been killed by the ether may not have been an exception.

CASE XI.—ABSCESS OF CEREBELLUM.

Dr. Finnel presented, May 26th, 1869, on behalf of Dr. Cushman, a cerebellum removed from a man thirty years of age, who while working in the hold of a ship was struck on the head by a descending coal-hod. He became insensible for a time, but was soon after able to resume his work, which he continued uninterruptedly for a period of eight days. At the end of that time he was seized with symptoms of cerebral inflammation. The supervening coma was followed by death on the fourteenth day.

At the autopsy the right hemisphere of the cerebellum was the seat of an abscess which contained about two teaspoonfuls of pus. The neighboring tissue was much softened.

CASE XII.—APOPLEXY OF THE CEREBELLUM.

By DR. T. C. FINNELL.—In a debilitated woman, aged thirty-five. No organic disease was discovered, but numerous petechiæ, apparently the result of semi-starvation. One afternoon, while conversing with a friend who sat at her bedside, she suddenly became pale and in a very few minutes expired.

Autopsy.—One-half of the liver was intensely congested, while the other portion seemed to be almost free from blood. There were also found stained spots along the intestines and blood extravasated in the cellular tissue about the kidney. On removing the calvarium, a quantity of effused blood was found underneath the dura-mater, in the neighborhood of the foramen magnum, caused by a laceration of the *left* lobe of the cerebellum, in the substance of which was a large amount of coagulated blood.

DR. CLARK remarked that the specimen of apoplexy was one worthy of notice as occurring in the cerebellum and tearing through its substance. A large proportion of the sudden deaths from apoplexy, in his opinion, was due to paralysis of the respiratory nerves by the presence of effused blood at the base of the brain.

DR. ROBERT NEWMAN presented a specimen of

CARCINOMA OF THE BREAST.

[See *Medical Record*———.]

DR. JOHN A. WYETH presented a specimen with the following history:

MYXO-SARCOMA OF THE NECK—LIGATION OF THE COMMON, INTERNAL, AND EXTERNAL CAROTID, SUPERIOR THYROID, LINGUAL, FACIAL, AND OCCIPITAL ARTERIES, AND OF THE EXTERNAL JUGULAR VEIN.

John O., fifty-four years of age, Scotch, but long resident of New York, a sexton, eighteen months prior to March, 1881, noticed a swelling on the left side of his neck. His health had been good up to three years before this time, when he began to decline, without any appreciable cause. He went to the New

York Hospital in January, 1881; but an operation for removal of the tumor was not recommended, and injections of arsenic were used. He came under my observation in April, 1881, with a prominent bulging of the left side of the neck, extending from the lower jaw to the clavicle. The trachea was displaced, the pomum Adami being pushed one inch to the right of the median line. His breathing was extremely difficult, and he suffered intensely from the pressure of the mass upon the brachial plexus. He was anxious to be operated upon, and I explained to him that the tumor was malignant in all probability, would recur if removed, and that his chances of living through an operation were very small: but he insisted on something being done, and with the advice of Dr. Willard Parker, who kindly saw the case with me, I consented to attempt the removal of the mass, or as much of it as pressed upon the trachea and brachial nerves.

Assisted by Drs. Parker, Stimson, Banks, Symington, Alexander and Ayers, I operated on April 28th, 1881. The first incision extended from the ear to the clavicle. The external jugular was tied, and then the sterno-mastoid and omo-hyoid muscles were divided. Dissection into the tumor revealed that the carotids and their branches, the internal jugular vein, and the pneumogastric nerve were imbedded in its meshes. I then tied the common carotid with a catgut ligature about the size of an A violin string. The external and internal carotids, the facial, lingual, thyroid, and occipital arteries were also tied, each, with two ligatures, and divided between them. The pneumogastric nerve was then dissected out for about two inches. At this stage of the operation it was discovered that the tumor involved the subclavian artery and vein and the thoracic duct, and that its complete removal was impossible: but portions of the upper and outer sphere were removed in order to relieve as much of pressure as was possible; the wound was closed, and drainage secured. About twenty-five ligatures in all were applied, and the hemorrhage was not excessive. The patient recovered consciousness three or four hours after the operation, complained of intense pain in the arm and wound, and morphine was administered hypodermically. He remained quiet, but soon became unconscious again; gradually sank, and died in twenty-six hours, partly from exhaustion due to long-continued suffering and bad condition, but chiefly to the operation.

The microscopical examination made by Drs. Welch, Wardwell, and myself showed the tumor to be myxo-sarcoma.

TUBERCULOUS DEGENERATION OF THE LYMPHATIC GLANDS OF THE NECK.

Dr. Wyeth also presented a patient with the following history, furnished by Dr. Anderson, of the house staff at Mount Sinai Hospital:

Henry F., twenty-two years of age, butcher, resident of New Jersey, and a native of the United States: his father is living and healthy; his mother died of consumption; one brother is livand healthy; two sisters are living, one in good health; the other is said to have "trouble around her heart:" two brothers are dead, aged five and fifteen years; causes of death unknown: one sister, aged thirty-two, died of consumption. The patient had been perfectly well up to three years ago, 1878, when a small lump, the size of a pea, appeared on the left side of his neck, and gradually grew larger. At various times since then, other such lumps have appeared and increased in size. In the spring of 1881, he was admitted to the New York Hospital, where he remained one week. He was informed that no operation would be undertaken on him, and was discharged. He then consulted Dr. Jacobi, who sent him into Dr. Wyeth's service, at the Mount Sinai Hospital, June 13th, 1881. There was a protrusion on the left side of the neck from the jaw to the clavicle, projecting as far out as the level of the inferior maxilla; and he was suffering from considerable pain. On June 19th, I removed some enlarged glands, about ten in number, and varying from a hazelnut to a walnut in size, from the lower half of the neck. The external jugular vein was tied, but, owing to general hemorrhage, the operation was tedious, lasting two hours.

He, however, recovered promptly, and on July 10th, the incision was continued to the tragus of the ear, and about twenty more tumors, one or two of large size, were removed. The sterno-mastoid muscle was divided, as well as the omo-hyoid, and five glands were removed from the sheath of the internal jugular vein, to which they were closely adherent. About thirty ligatures were applied in both operations; but no vessels of any magnitude were divided. He recovered quickly, and on November 23d was still well, and the wound had healed, without trouble from the division of the mastoid muscle. Drs. Welch, Wardwell, andI have examined these tumors, and find them tubercular; the central portions were degenerated and occupied by masses of tubercle; the capsules were thickened, with an increase of the connective-tissue spindle-cells.

PACHYMENINGITIS CHRONICA.

Dr. George L. Peabody presented three specimens illustrating this affection, with the following histories:

Case I.—P. M——, forty-five years of age, Irish, married, a shoemaker, and, without previous history, was admitted to Chambers Street Hospital October 7th, 1881, at 10:35 a.m. He was unconscious; surface dry; temperature 99.4° F.; left side of face and left arm and leg paralyzed, both as to motion and sensation; right arm rigid; left pupil dilated, right contracted; breathing stertorous; urine negative.

Treatment.—Ice-bag to head. The right pupil subsequently became dilated, but neither was responsive to light; the paralysis became general. Pulse 72, temperature 106°, just before death. He died on same day at 6:50 p.m.

Autopsy, sixteen hours after death. The left ventricle was considerably hypertrophied and slightly dilated; the valves were normal. The kidneys showed chronic diffuse nephritis. The dura mater, on its inner surface and right side, was covered by a thick false membrane of fully-formed connective tissue, whose substance contained much blood-pigment and many blood-vessels. Numerous clots of recently coagulated blood were lying upon the parietal and frontal convolutions of the right side; and about four ounces of fluid blood were spread over the surface of the right hemisphere, which was distinctly flattened by the pressure thus directly put upon it.

Case II.—Unknown man, about thirty-five years of age, was found on the evening of November 13th, 1881, in the street, unconscious. He was taken to the Chambers Street Hospital, November 14th, 5:30 A.M., still insensible, and reeking with the fumes of alcohol. Pulse intermittent and feeble; temperature 101.5°; respiration shallow; pupils dilated. The urine showed a small amount of albumen.

Treatment.—Hot-air bath and stimulants. At 9 A.M., his pulse had disappeared at the wrist, and the patient was sinking. Temperature, 98° F.; pupils contracted. He died at 10:50 A.M.

Autopsy, immediately after death. Body well nourished; no œdema; lungs normal; heart healthy; kidneys in condition of chronic diffuse nephritis, not far advanced; stomach and liver natural. On the falx cerebri was a layer of false membrane, made of fully formed connective tissue, containing blood-pigment, and markedly congested. It was about half an inch in width, and extended from a point half an inch behind the origin of the falx to the union of the falx with the tentorium cerebelli. On cutting through the dura mater, a large amount of fluid blood escaped—probably eight ounces.

Case III.—Mrs. G. R——, forty-seven years of age, born in France, widow, nurse, was brought to the New York Hospital, May 15th, 1881, in an ambulance, at 4 P.M. She was unable to give any history, still her friends said during the past week she had been much in the sun, but was well up to last night. On her return home, she complained of headache and drowsiness; went to bed, and was found this morning with paralysis of the right side of the body, and speechless.

On admission, she looked well nourished, but had marked œdema of the left hand. Pulse 96, full and forcible; respiration 18; temperature 99.6°. Very stupid; did not reply to questions, and does not appear to understand them; pupils dilated, and very sluggish; complete paralysis of motion and sensation on the right side of her body and face; reflex diminished in right leg, absent in right arm; no abnormal heart-sounds. Urine acid (sp. grav. 1.034), contains urates.

She remained in this condition for four days, her pulse, respiration, and temperature being normal; but she passed her urine and fæces in bed. She then regained very slight motion in her right arm and leg, but soon became decidedly worse, the paralysis again becoming complete. Six days after the attack began, she became comatose, with stertorous breathing, and died on the ninth day, with a temperature of 106.2°.

Autopsy, eleven hours after death.—Body well nourished; rigor mortis well marked; slight œdema of both lower extremities, and of the left hand.

The kidneys were small, with many cysts in the cortex; marked atrophy; cortex markings indistinct. Beneath the dura mater of the left hemisphere there was about six ounces of fluid blood, which was very brownish in color (owing to an abundant amount of blood-pigment dissolved in serum). This, by its pressure, had very markedly disturbed the surface of that hemisphere. The dura mater, in this situation, is covered, as you see, by a false membrane, which is of a brownish color, owing to the blood-pigment which it contains. This false membrane has been raised from the surface of the dura mater by extravasated blood, and it is made up of connective tissue, and seems to be quite vascular. On the other side of the head, there are smaller patches of false membrane on the dura mater, which contained, at the autopsy, some extravasated blood. The walls of the left lateral ventricle were approximated by pressure. The brain tissue was nowhere lacerated.

The only other lesion of interest was that of chronic diffuse nephritis, which has been already alluded to, and which was verified by microscopic examination.

CEREBRO-SPINAL MENINGITIS, WITH ACUTE ENDOCARDITIS AND PERICARDITIS.

Dr. H. N. Heineman presented specimens from a boy, fourteen years of age, with the following history: Z. T——, a clerk, Austrian, was admitted to the Mt. Sinai Hospital November 19th, 1881. Two days before, he was seized with severe headache, pain in the back and limbs, and a not very marked chill followed by fever, with loss of appetite, constant vomiting, and epigastric distress. His bowels were constipated. Upon admission he was rational; complained of severe headache, epigastric and abdominal pain, and more or less constant vomiting; his tongue was thickly coated; bowels constipated; pulse 120, and feeble; temperature (rectal), 105.2°; heart and lungs negative.

November 20th.—Stomach less irritable; was rational, but somewhat apathetic; pulse, 130; temperature (rectal), A.M., 103.4°; P.M., 105.6°; no pericardial friction sound; fæces and urine passed involuntarily.

November 21st, 6 A.M.—A purpuric eruption appeared, first upon the chest, then on the face, finally on all the extremities, and a little upon the back. Temperature, 104.8°; pulse, 140, feeble. At noon, he was quiet, answered questions, though delirious; had photophobia, and his pupils were dilated, but responsive. There was hyperæsthesia along the spine (no opisthotonos); dysæsthesia of the feet and legs, most marked on the left side. The purpuric eruption was fading upon the chest, but there were pin-point ecchymotic spots upon the body and extremities; a large ecchymosis upon the palmar surface of the left hand, and another over the left external malleolus. At 3 P.M., there was feeble and diffused-apex beat, and a slightly increased area of precardial dulness: pericarditis was suspected by Dr. Weiss, acting house physician. At 11 P.M., a second crop of purpuric spots had appeared all over the body, also ecchymoses involving the entire fingers of both hands. He was almost pulseless; temperature, 106.2°; there were convulsive movements of the muscles of the face and body, most marked in the left extremities.

November 22d, 2 A.M.—Pulse restored, 160. At 3 A.M., he had a second slight convulsive seizure, and died at 3.20 A.M.

The autopsy revealed the following lesions:

Brain.—The pia mater was lustreless, congested, and inflamed; contained a few ecchymotic spots, and showed in a few places, a very limited fibrino-purulent exudation. The posterior horn of the right lateral ventricle inclosed a tolerably firm, rounded clot, which had caused breaking down of the tissue of the occipital lobe, and almost approached the surface. Deep in the-substance of the left occipital lobe was a small, recent firm clot about half an inch in diameter. The ependyma of the lateral ventricles was thickened. The pia mater of the cord was congested, inflamed, and somewhat opaque, but contained no exudation.

Lungs.—The bronchial mucous membrane was inflamed, coated by a thin, whitish layer of fibrin, and an abundant mucopurulent exudation. The lower lobes of the lungs were congested: the upper lobes were dry.

Heart.—The mitral valves were covered by recent vegetations. Near the apex in the anterior wall of the left ventricle was a small cavity indicative of a probable abscess and destruction of tissue; surrounded by a zone of dark-colored heart-muscle. The pericardial sac contained considerable purulent serum, and both pericardial layers were thickly coated by recent fibrino-purulent exudation.

Liver and spleen congested.

Kidneys.—Size normal; capsules not adherent. The left kidney contained numerous small yellowish and whitish abscesses about the size of a pin's head, each surrounded by a red zone. In the right kidney there was a large white infarction and a few small abscesses similar to those found in the left kidney.

The case was one of epidemic cerebro-spinal meningitis, with acute endocarditis and pericarditis. The infection had also involved the kidneys; and probably the exudation upon the mitral valve, as well as the punctate abscesses in the kidney contained micrococci.

NOTE.—See Bulletin, pages 148 to 152, and 239 to 246. The involvement of the heart is especially interesting in the view that the disease is sometimes a typhous or septic rheumatic inflammation induced by exposure to cold, wet, and filth.

WELL-MARKED SYMPTOMS OF CHRONIC DISEASE OF THE BRAIN, WITH ONLY CONGESTION OF THE VESSELS OF THE PIA MATER AND CEREBRUM AT THE POST-MORTEM.

DR. VAN GIESON presented a brain from a man thirty-six years of age, well-developed, strong and muscular, and of good constitution. He had enjoyed exceptionably good health, was married, temperate in his habits, and never had syphilis. His parents are still living, and in good health. Up to last January (1881), he had had no feeling of illness; attended to his business regularly; but occasionally suffered from severe pain in the left side of his cranium.

Some weeks before this, he fell from a wagon, struck upon his head, received a scalp wound, but soon picked himself up and drove on, not attaching enough importance to it to think it necessary to consult a physician. His wife, in the absence of any other apparent cause, ascribed all his subsequent sickness to this fall, although the interval between it and the development of the pain in the head was some weeks. From January until February 15th, 1881, he had a fever and was confined to his bed for four or five days, during which time he had several tonic convulsions. He left his bed in five days, and again applied himself to business, but in about a week he had a similar attack, lasting four days, and also attended with tonic spasms. His physician told his family he was suffering from cerebral hyperæmia from overwork, and advised complete rest from business. This advice was not followed, and not long after, a third, and more severe attack occurred, spasms being again a prominent feature of the illness. During this third relapse, he had double and indistinct vision. He again recovered, spent a few weeks in the country, and was not,, during this time, under the care of a physician, although he had one or two more attacks of spasms.

Dr. Van Gieson first saw him on May 24th, P.M. His temperature was then normal; pulse, 56, full, but compressible; he was entirely sensible, and readily gave the foregoing facts in the history of his case.

May 26th.—Has had several convulsions since last my visit, but little or no pain in the head.

May 29th.—Pulse, 50; respiration, temperature, urine, heart, and lungs, all normal. Has double vision; is unable to read print at any distance with both eyes; but with the right eye closed, he can see more distinctly with the left eye. Has diminished power in grasping with the right hand, and there is loss of muscular power on the right side, but he is able to move the arm and leg freely. There is no loss of sensation, but rather general hyperæsthesia: slight irritation, such as sudden pricking of the skin, will bring on a convulsive movement, which is tonic in its character: the head is slowly thrown back, the eyes become fixed, the muscles of the arms and legs become rigid, and remain so for a few seconds, sometimes the greater part of a minute; then comes a sudden relaxation. This may end the attack, or he may have a repetition of the symptoms: there is no frothing at the mouth, nor biting of the tongue, and during slight spasms he does not entirely lose consciousness.

May 30th.—His bowels have not been moved in five days, pulse, 56; urine passed but twice in twenty-four hours. Croton oil, repeated every four hours, produced a moderate passage after the second dose. Five-grain doses of kal. iod. were given every two hours, with scruple doses of ammonii bromide every two hours during the night, to control the spasms.

June 1st.—Slight improvement; increased kali iodide to 10 grains, per dose.

June 4th.—Pulse, 52. Right leg cooler than the left; has passed no urine for thirty-six hours, but has had no convulsions since the 31st ult.

June 6th.—Intellect clear; only slight headache. Can see better; has no double vision, and can read coarse print; pulse, 64; bowels constipated.

June 14th.—The treatment has been kept up, and his condition is about the same. Vision is clear, only double at times. Pulse varies from 40 to 56. Obstinate constipation is a prominent feature. He gets a fair amount of sleep. Is unable to stand alone; his right leg is weaker than the left; tendon reflex in both legs normal.

This A.M. his wife was accidentally shot by her brother-in-law, who was handling a small pistol in the sick-room. The wound, though not mortal, was a severe one, and this occurrence threw him into violent and long-continued convulsions, requiring one or two strong assistants to hold him during their height.

June 25th.—He has returned to his usual condition. He is entirely rational, and very anxious to resume his business, although he has, on an average, about three convulsions daily.

June 27th.—Dr. E. G. Janeway thinks that a cerebral tumor is present, and the prognosis is fatal. The duration of the disease would be uncertain, and its progress will be slow. Elevation of temperature and coma might be expected to precede the fatal result.

July 10th.—Pulse 48 to 56 since the last report. Obstinate constipation persists. The treatment was continued.

August 1st.—Condition unchanged; vision better; reads newspapers at times; intellect clear; memory defective.

August 25th.—Has been twelve days without a convulsion, but is very much emaciated, and daily growing weaker. The temperature has remained normal throughout, and the pulse varied from 48 to 56.

September 14th.—No special change, except the intensely hot weather has materially weakened him. The spasmodic movements occur at long intervals. The loss of muscular power on the right side is very marked. Vision has improved. All treatment was suspended, except occasional doses of bromide and chloral hydrate.

October 8th.—Is inclined to stupor, and is awakened with difficulty. Pulse, 60; temperature normal; and emaciation very tmarked.

October 18th.—Has been free from convulsions for two weeks; the bowels move, without medicine, every second day. His inellect is clear; the tendency to stupor has disappeared: but he is wasting rapidly, and there is retraction of the abdominal walls.

October 29th.—He is again inclined to stupor, quite profound.

November 1st.—He lies motionless, with his eyes open and fixed; the pupils contract to light, but the eyes do not follow a lamp when moved from side to side. Respiration, 24; pulse, 68; temperature normal. When loudly spoken to, he replies sensibly in a faint whisper. He is unable to swallow.

November 4th.—Remains in the same condition; has had two slight convulsions daily. Desires cold water continuously poured on the head, and when the affusions are stopped for a time, he faintly makes signs, and with indistinct whispers desires to have them renewed. Though unable to swallow, he requests ice-water to be poured in his mouth. If these mute requests are attended to, he will remain motionless for hours; but if long withheld, he becomes impatient.

November 9th.—The affusions have been kept up with slight remissions only. Pulse, 120, faint and thread-like. The cornea is dim; mucus exudes from the corners of the eyes. He says, occasionally, in a faint whisper, that he thinks he will get better. Slight convulsions have occurred two or three times daily, followed by distressing fits of coughing. He remained nearly in this condition, growing weaker each day until November 16th, when he quietly died at 10 A.M., not having swallowed a drop of fluid for fourteen days.

The *autopsy* was made at 1:30 P.M. on the following day, about twenty-seven hours after death, Dr. J. A. Jenkins, of Brooklyn, assisting. The cranial cavity and contents only were examined. The pia mater was intensely congested. About one and one-half ounces of serous fluid, faintly tinged with blood, were left in the cavity of the skull when the brain was entirely removed. No further examination of the brain was made at that time, but the next day it was carefully examined by Prof. Janeway with negative results. The main lesion, to the naked eye, was very marked congestion of the pia and the vessels in the substance of the brain. Small portions from various parts of the brain were placed in Müller's fluid for microscopic examination, but the examination thus far has given negative results.

GRAINS OF GUNPOWDER IMBEDDED IN THE SKIN—REMOVAL WITHOUT REMAINING DISCOLORATION.

Dr. B. A. Watson presented a boy who, on the Fourth of July last, had a large number of grains of gunpowder lodged in the skin of the right side of his face, the cheek, nose, and lips. The operation for their removal was done in the following September, and consisted in taking away small discs (eighty-four in number) of the integument, including the grain of gunpowder. The deformity left was very trifling indeed. The instrument with which the operation was performed was called a discotome. [See *Medical Record,* vol. xiv., p. 78.]

PNEUMONIC PHTHISIS—EARLY FORMATION OF CAVITIES.

DR. BEVERLEY ROBINSON presented the lungs from a man who died in St. Luke's Hospital, November 11th, 1881. He was admitted October 17th, when there was evidence of general bronchitis, with consolidation in the lower two-thirds of the right lung. Three weeks previous to admission, he had a chill, cough, with hæmoptysis, and the spitting of blood (of a bright-red color) had continued daily, more or less. He had slight night-sweats, loss of appetite, dyspnœa, but felt very well when he had no hemorrhage, and was still well nourished, and did not seem weak, although his pulse was accelerated and temperature elevated. In the latter part of October, a noticeable feature was a difference of 5° between the morning and evening temperature.

At the *autopsy,* the right lung was firmly adherent to the chest by recent adhesions: the middle and lower lobes contained cavities of varying size, the largest being in the upper portion of the lower lobe, and of the size of a pigeon's egg. The left lung was œdematous, deeply congested, and contained several points of extravasation, with spots of commencing cheesy pneumonia.

The spleen was small and firm. The kidneys were fatty; their capsules neither adherent nor thickened: weight: left, five and one-half, and right, four ounces.

The points of special interest were the rapid development of phthisis and the notably great fluctuations of temperature.

TYPHOID FEVER—SUDDEN DEATH—ANTE-MORTEM HEART-CLOT.

DR. ROBINSON also presented the heart from a man, thirty years of age, who died suddenly during the progress of typhoid fever, in St. Luke's Hospital, November 12th, 1881. Death occurred on the nineteenth day of the disease. The patient's temperature had not been very much elevated until the second day before his death, when it reached 103½°, and the pulse 120. He had diarrhœa, and on November 9th and 10th, he was delirious and weak; on the 11th, semi-comatose; on the 12th, his breathing became very rapid, without apparent cause, but his face and extremities were not cyanosed, and he gradually sank, and died at 9:15 A.M.

At the *autopsy,* there were enlarged and softened spleen, splenization of the lungs, fatty kidneys, swollen solitary follicles, numerous ulcers scattered along the entire length of the ileum, and the ileo-cæcal valve was thickened and extensively ulcerated.

The feature of special interest was the existence of a long, *slender,* fibrinous clot attached to the aortic and mitral valves, and extending, ribbon-like, into the aorta. There was also an ante-mortem clot attached to the chordæ tendinæ, and quite extensive granular degeneration of the muscular fibre of the heart.

According to his observations, there was a marked difference between the condition of the heart of a patient dying of typhoid fever and of one dying of diphtheria. Although apparently similar in character, he had found the right heart, ventricle, and auricle, in diphtheritic patients, filled, as a rule, with a mass of fibrinous deposit, which seemed to have been formed some days prior to death. In several cases of death from typhoid fever, he had found the blood in the right heart liquid, and in the left heart fibrinous masses of small dimensions, but they did not seem to be the immediate cause of death.

With reference to treatment, he asked to what extent alcoholic stimulants and heart tonics, such as digitalis, nux vomica, etc., could be pushed with advantage in cases similar to the one reported.

DR. J. LEWIS SMITH referred to the prevalence of a continued fever in the northwestern part of the city, and was inclined to attribute it to the insufficient supply of Croton water, which prevented proper flushing of the waste-pipes in some of the tenement houses. In some cases the disease had lasted three or four weeks, but had usually terminated favorably. Diarrhœa had been absent in some, and in none had he been able to find the rose-colored eruption.

Dr. Wendt said that an irregular type of typhoid fever was prevailing in some of the lower and eastern districts in the city. He had made several autopsies without finding extensive lesions either in the intestines or other organs. He believed that a certain proportion of these patients would die irrespective of treatment.

Dr. Robinson believed there was not much correlation between a certain amount of rise of temperature and granular degeneration of tissue in diseases of the ordinary infectious type.

The President remarked that a reciprocal relation did not always exist between the two conditions, especially in the English cases, where the temperature rose to 114° and 120° F., and the patient recovered. The excessive temperature in them was doubtless due to some affection of the sympathetic nervous system rather than to organic disease.

THROMBUS OF THE PULMONARY ARTERY.

Dr. F. D. Lente, January 28th, 1874, presented a specimen of the heart and annexa from a female patient, aged sixty-two, who had been injured on New Year's day while sleigh-riding, by the breaking of a runner, which precipitated the patient and her companions to the ground. When picked up, she was found jammed between two rocks, with a fracture of the tibia into the knee-joint; at the same time one of the sleigh seats was lying across her chest.

Dr. Lente saw her within an hour after the accident, when she complained for the most part of a severe pain in the breast. The fracture was at once placed in an immovable apparatus, and did well. The only sign of injury to the sternum was an ecchymosis, which increased during the time that she lived. The complaint of pain in the chest was constant, the patient affirming that she had suffered some internal injury at the time of the accident. Between the second and third week, she complained of severe neuralgic pains, which continued more or less up to the time of her death, and for which hypodermic injections of morphine were administered.

On January 24th, the third week of the attack, very alarming symptoms suddenly set in, and during Dr. Lente's absence, Dr. Murdock was called in, who found the patient suffering from nausea, intense headache, pains in different parts of the body, with the face perfectly blanched, and a pulse scarcely perceptible. He commenced stimulating the patient in every possible way; gave hypodermic injections of brandy (15 minims) every fifteen minutes, and also administered morphine hypodermically for the control of the neuralgia. She had no dysphagia nor dyspnœa, and complained principally of excessive weakness. Dr. L. saw her at 5 P.M., when she was said to have rallied somewhat. She had not vomited, and was perfectly sensible; but, complaining at the time of pain across the abdomen and right ankle, a hypodermic injection of morphine was administered, and from this time until her death she did not suffer from severe pain. Despite all the efforts, among which was the use of the faradic current, she sank, and died at 8 o'clock P.M. The diagnosis of thrombus of the pulmonary artery was made out previous to death.

At the *autopsy*, there was nothing worthy of note in the chest contents, save the heart and its surroundings. The heart itself was well covered with adipose tissue; the right ventricle contained a moderate amount of fluid blood, and also a large firm clot, passing directly through the aurico-ventricular opening, firmly attached to the columnæ carnæ on one side, and the musculæ tendinea on the other. On slitting up the pulmonary artery, it was found that the thrombus completely stopped up the vessel on the left side, and allowed only a small passage for the blood on the right. The clot could be traced for two inches through the ramifications.

In conclusion, Dr. Lente remarked that the specimen explained why the symptoms so closely resembled those of internal hemorrhage. No connection was made out between the accident and the direct cause of death. The valves of the heart were perfectly healthy.

NOTE.—According to Dr. Francis Delafield, late President of this Society, it is very common to find yellow, succulent, semi-translucent masses in the heart. They are most common and of firmest texture in persons who die of acute diseases. They may adhere quite firmly to the walls of the heart, and extend in long and branching cords into the vessels. They are formed in the last hours of life and just after death, and have no clinical or pathological importance. But coagulations of the fibrin of the blood in the heart do occur during life, and may exist for years. They form flattened masses, firmly adherent to the endocardium; or rounded bodies in the spaces between the trabeculæ; or have a polypoid shape; are attached by a narrow pedicle, or are free in the cavity. They are usually found in connection with some valvular disease. They are firm, dry, and whitish.

Dr. J. Lewis Smith presented a specimen of

RACHITIS.

The Society then went into executive session.

Stated Meeting, December 14th, 1881.

Dr. Thos. E. Satterthwaite, *President, in the Chair.*

Dr. Wesley M. Carpenter, *Secretary.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Specimen of purpura hæmorrhagica....................By the **President** and **Dr. Beverley Robinson** for **Robert T. Howe**, *Candidate.*
2. Cyst of the pancreas weighing twenty and one-half pounds. By **Dr. Nathan Bozeman.**
3. Catarrhal phthisis...............By **Dr. Wm. H. Porter.**
4. Primary sarcoma of the kidney....By **Dr. Wm. H. Porter.**
5. Carcinoma of the bladder.........By **Dr. Wm. H. Porter.**
6. Prehistoric syphilis (?)................By **Dr. F. N. Otis.**
7. Floating cartilages in the knee-joint. By **Dr. A. P. Gerster.**
8. Removal of the great toe nail....By **Dr. Robert Newman.**
9. Fibro-myxo-sarcoma of the larynx..By **Dr. Louis Elsberg.**
10. Nasal diphtheria and broncho-pneumonia. By **Dr. J. Lewis Smith.**
11. Solvent for pseudo-membranes.... By **Dr. J. Lewis Smith.**
12. Aneurism of the right and left pulmonary arteries. By **Dr. John H. Duffield**, *Candidate.*

The President presented, in behalf of a candidate, a specimen of

PURPURA HÆMORRHAGICA.*

By **Dr. Robert T. Howe**, *Candidate.*—C. F., æt. 35, Ireland, single, was admitted to St. Luke's Hospital, November 22d, 1881, in the service of Dr. Beverley Robinson, attending physician. She gave the history of a slight attack of malaria within the last few years, but otherwise has always been in fair health. Three days ago, was perfectly well, but complained of cold feet. During that night she was wakened by a severe chill, lasting about three-quarters of an hour, followed by fever, sweating, and severe pains in the back and limbs, headache, and nausea. Soon after the chill, she began to spit blood, and continued to do so; but after a few hours, the subjective symptoms of headache, nausea, etc., disappeared, and did not return. The day before admission she began to flow from the vagina, though her periods had been completed three weeks before: but this hemorrhage was not profuse, and only amounted to a considerable quantity when she sat up or walked. The morning of the day she was admitted, she had one bloody passage from the bowels, and several ecchymoses appeared upon the dorsal surfaces of her hands, but nowhere else. She still presented the appearance of perfect health, and was stout, robust, and well developed; but was spitting blood—not coughing nor vomiting it. She made no complaint of any constitutional disturbance, but on the inside of her cheeks and the dorsum of the tongue were several entirely painless, raised dark-red, fungous-looking patches of various sizes, mostly that of a split-pea. She had no appetite, but complained of intense thirst. She was given: ℞ Ext. ergotæ, fl. ʒ ss.; Tinct. digital., gtt. iij. M. Sig. every hour; also, Tinct. ferri chlor., ʒ ss., and ʒ ij. of brandy every two hours, and an acid drink.

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* The history of this rare and interesting case was taken by my house-physician, Dr. Robert T. Howe, and I desire here to thank him for his courtesy.—**Dr. B. Robinson.**

November 23d, 7.45 A.M.—She fainted and remained unconscious several minutes. Pulse feeble (75 per minute); the hemorrhage from the mouth and vagina was unchecked. She vomited dark grumous blood twice; had one tar-colored stool during the day, and towards evening became paler and weaker, and pulse was much depressed. The digitalis and ergot were stopped, and ergotin (gr. ⅙) given hypodermically every two hours, after two injections of which the bleeding from the mouth had nearly ceased.

Through November 24th and 25th, ergotin was given hypodermically, the dose being, on the second day, increased to gr. i.

every six hours, alternating with Ferri dialys., gtt. x. (hypod.), with slight improvement; for, though the bleeding was not checked, it was considerably diminished in amount, and the pulse became a trifle stronger. Still the vomiting of blood, flooding from the vagina, and bloody stools continued, and the urine contains five per cent albumen and blood (sp. grav. 1.024), alkaline.

November 26th.—Hypodermics were stopped, as large hemorrhagic spots appeared wherever the needle was introduced, and dialyzed iron and scraped meat were given. She was now very weak; her complexion waxy, and extremities cold. General faradization was practised.

A microscopic examination (made by Dr. Beverley Robinson) of her blood showed:—

1. The red blood-globules irregular in shape, some being crenated, some triangular, and others festooned on their free borders. They were also paler than normal, and did not adhere to each other as in health.

2. The relative number of white to red globules was 1 to 150 or 200. During the afternoon, her bowels were moved by a flaxseed enema, and the passage consisted of a large quantity of dark, jelly-like matter. She rapidly grew weaker, and at 10 P.M., complained of an intense, dull pain in the epigastrium. The application of a poultice relieved this distress, but she soon sank into a deep sleep, when her breathing, which had been natural, became gradually stertorous; her pulse feeble and rapid, and she died 4 A.M., November 27th. The heart-sounds were good up to five minutes before death, and were heard fully one minute after breathing had ceased. The temperature at no time during her sickness had been abnormal.

Autopsy, twenty-nine hours after death. Made by Drs. Thos. E. Satterthwaite, Pathologist to St. Luke's Hospital, and E. C. Wendt.—Body well nourished; surface pale; rigor mortis well marked; ecchymotic spots upon the arms and legs where the hypodermic needle had pierced; large spots of discoloration on the dorsum of both hands and under each eye, and a red spot over each upper eyelid at the inner canthus. The lips were covered with crusts of dried blood, and the upper lip deeply discolored.

Thoracic cavity.—Pleuritic adhesions over both lungs. The parietal layer of the pleura and pericardium showed numerous hemorrhagic spots, of sizes varying from a pin's head to a fifty-cent piece.

Lungs.—The right weighed nineteen and one-half ounces; the left, seventeen and one-half ounces. Both were œdematous, and the subpleural tissue presented small ecchymotic spots.

Heart.—Flabby, small, and pale, with hemorrhagic spots of various sizes beneath the endocardium on both sides. Valves normal.

The *Abdominal Cavity* contained two ounces of bloody fluid. The peritonæum, large and small intestines were mottled by ecchymoses. The descending colon inclosed a large quantity of dark, jelly-like clotted blood.

Kidneys.—Showed hemorrhagic spots beneath the capsules, and small clots, firmly attached, in the pelves. The mucous membrane was granular, rough, and injected with blood. The substance of the cortices and medulla was pale-yellowish. This was true of both organs, but the perirenal tissue of the right kidney was the seat of slight hemorrhage.

Liver.—Weight: three pounds one ounce; substance dry and pale, with only a few hemorrhagic spots beneath the capsule.

Stomach.—Normal, with the exception of a few spots of ecchymosis.

Spleen.—Weighed four ounces; was small, pale, and soft, and had a number of faint reddish spots under its capsule.

Uterus.—Showed only slight evidence of hemorrhage, but the cavity contained a fibroid one inch in length. The *vagina* was slightly congested.

An examination of the brain was, unfortunately, not permitted.

This was a typical and, at the same time, a very rare case. It was plainly in no way connected with hæmophilia, or the "bleeders' disease," with scurvy, or with rheumatism; nor did it follow any other known disease as a sequel. The patient had been known to the physician by whom she was sent to the hospital for some years as a woman of remarkable health. Some years ago, she had an attack of pneumonia, and had had frequent attacks of urticaria, which seemed to have no recognizable cause.

Certain points are worthy of special recognition:—First, the ecchymoses were inclined to be symmetrical; *i. e.*, those on the eyelids—a rare occurrence—and those on the backs of the hands. Then, in the serous membranes there were similar conditions. A remarkable feature not alluded to in the history was that the tongue and sides of the mouth were covered with peculiar bluish-red mulberry-like excrescences, which were blood-clots formed over the points of hemorrhage. The blood, therefore, was coagulated—a point of interest—for about it there was a difference of opinion.

REMOVAL OF A CYST OF THE PANCREAS WEIGHING TWENTY AND ONE-HALF POUNDS.

DR. N. BOZEMAN presented a specimen interesting with reference to three particulars: *first,* as having been removed from the pancreas of a living woman; *second,* as having been mistaken for an ovarian cyst; and *third,* as being the first operation of the kind upon record. The patient was the wife of a prominent physician of Texas, forty-one years of age, tall, robust, weighing nearly two hundred pounds, and perfectly healthy up to seven years ago, except occasional attacks of dyspepsia. Seven years ago she had, for the first time, pain in the right iliac region, extending down the right thigh and occasionally attended with numbness. Two years after, the abdomen began to enlarge, slowly at first, but steadily increased in size upon the left side, with a corresponding flatness upon the right side. The point at which the enlargement was first noticed was higher than would naturally be expected for an ovarian cyst, and no special importance was attached to the enlargement of the abdomen, either by herself or husband, who frequently examined the tumor. It progressed in the ordinary way up to six or seven months ago, when it suddenly began to grow rapidly, and finally the entire abdomen was expanded symmetrically: at the same time she began to lose flesh.

The case was pronounced to be one of ovarian cyst by Professor Richardson, of New Orleans, who advised the patient to consult Dr. Bozeman. On November 19th, 1881, she entered the Woman's Hospital, and Dr. Bozeman diagnosticated ovarian cyst: she was also examined by his colleagues, Drs. Thomas and Emmet, both of whom confirmed his diagnosis. An operation was decided upon, and it was performed on the second day of December, under Listerism. Nothing unusual presented itself in the early stage of the operation, and when the tumor was reached through an incision below the umbilicus, its appearance was nearly that presented by an ordinary unilocular ovarian cyst, except, perhaps, it had a little deeper pearlish color. It was tapped, and two and one-half gallons of fluid were removed, and only after the greater part of the liquid was drawn off, and about two-thirds of the cyst drawn through the abdominal opening, for the first time Dr. Bozeman suspected the disease was not ovarian. He then passed his hand into the peritoneal cavity and found the uterus and both ovaries, and also determined that the cyst had an origin somewhere in the upper part of the abdomen. The abdominal incision was extended upward two inches above the umbilicus, when the stomach was found crowded against the diaphragm, and the bowels deep in the abdominal cavity below the cyst, which had an extensive attachment, apparently to the transverse mesocolon. After some manipulation, he finally reached the pancreas, where he discovered a large vein, subsequently determined to be the splenic, which was very tortuous, and offered considerable obstruction to the operation, owing to its close relationship to the pedicle. Finally he traced the cyst down until he reached the tail of the pancreas, which was turned upon the side of the cyst, and firmly adherent to it to the extent of two inches. He then proceeded to separate the extremity of the pancreas from the cyst by dissection, and when completely disengaged the pancreas spread out and presented its natural appearance. The attachment of the cyst was at the junction of the outer with the inner two-thirds of the organ, and it had a pedicle three-fourths of an inch in length, and about three-fourths of an inch in diameter. The veins of the pedicle were very large, but having fairly reached the pedicle, he transfixed it with a needle, ligated it in the usual way, and cut it off. The result was that he cut out the bottom of the cyst, as shown in the specimen. The portion of the sac, however, which remained attached to the pedicle was subsequently completely removed by dissection. The artery which supplied the growth was doubtless a branch of the splenic, and had attained a very great size, being as large as the brachial. The loss of blood was small, and not a single bleeding vessel required a ligature. The fluid which the cyst contained was of a light-brownish color, its specific gravity was 1.020, and it had an acid reaction, in that respect differing from the fluid of an ordinary ovarian cyst, which is alkaline. The girth of the patient before the operation was forty-one inches; and both oblique measurements, from the anterior superior spinous processes of the ilia to the umbilicus, were each nine inches. The tumor, with the fluid, weighed twenty and one-half pounds.

The specimen was also interesting in another respect, namely: with reference to the point of attachment, which was almost precisely in the position occupied by the bullet in the late case of our deceased President. The patient underwent special preparation for the operation: she took salicin, fifteen grains three times a day for two weeks; and on the morning of the day on which the operation was performed she received fifteen grains of quinine with one of opium, so that she went upon the table thoroughly cinchonized. She rallied from the anæsthetic and from the operation without any shock whatever; and after the operation, she took by the rectum, at intervals of six hours, ten grains of quinine with two ounces of beef-juice, half a drachm of liquor opii comp., and two drachms of brandy. On the third day, the temperature reached its highest point, 101.5° F.: but the pulse never rose above 98, and subsequently it soon fell to 80, and the quantity of quinine was gradually lessened; but on the eighth day after the stopping the quinine, her temperature rose to 102.8°, when quinine was again resumed, ten grains every six hours, and the temperature, in the course of thirty-six hours, feel to 99.5° F. Subsequently the patient progressed in the most satisfactory manner, and there was every prospect of a complete recovery.

NOTE.—Almost the only cysts of the pancreas generally described arise from dilatation of the ducts. Wilks and Moxon describe one as large as an egg. Dr. Francis Delafield gives the best account of them, and reports some as large as a child's head. The contained fluid may be white and viscid; or the cysts may be filled with blood, so as to be mistaken for aneurisms.

CATARRHAL PHTHISIS—PLEURISY WITH EFFUSION—EMPHYSEMA —CARNIFICATION OF THE LUNG.

DR. WILLIAM HENRY PORTER presented specimens from a patient in the service of Dr. A. Haddon, at the Presbyterian Hospital, with the following history: F. B., sixteen years of age, born in Ireland, single, and a bartender, was admitted December 15th, 1877: his family history was strongly phthisical. He had had no syphilis, and his present illness commenced one month ago, with a severe hæmoptysis, which was followed by slight attacks that yielded to ergot. On Jan. 29th, a pleuro-pneumonia of the left side of a mild type occurred, followed by slight effusion of fluid into the same pleural sac. From the pneumonia he readily recovered, yet evidence of fluid still remained, but on March 16th he felt so well that he was, at his own request, discharged.

He returned to his business until September 8th, 1878, when he was readmitted to the hospital with all the rational symptoms of phthisis, and physical examination of the right side revealed phthisis, but on the left gave evidence of a chest full of fluid. He was first placed upon a tonic and diuretic treatment, which, however, did not diminish the quantity of fluid in the left pleural sac. On September 16th, 1878, the patient was aspirated, and one hundred ounces of fairly clear fluid were withdrawn from the chest cavity, with temporary relief; but the chest soon refilled. Physical examination gave evidence of rapidly progressing phthisis on the right side, and displacement of the heart to right, so that the apex beat was nearly in the median line. On November 8th, 1878, a free incision was made into the left pleural sac, between the sixth and seventh ribs, one hundred and twenty ounces of stinking pus were withdrawn, and a flexible catheter was introduced into the chest cavity. After the free opening into the thorax, the patient improved for several weeks, but finally sank gradually, and died March 16th, 1879. From Nov. 8th until the time of his death, the cavity was thoroughly cleansed twice daily with disinfecting fluid.

Necropsy, thirty-two and one-half hours after death.—Body much emaciated. Rigor mortis marked. One bed-sore over the right trochanter major. A drainage-tube projected from the left side. When the anterior wall of the chest cavity was removed, a large, empty space presented, in place of the left lung or fluid. The pericardium and heart were in the median line, and did not present anything specially abnormal, except that the heart was anæmic (?). There were not more than four ounces of fluid in the left pleural cavity. The whole chest-wall was in a sloughing condition, and in many places all the soft tissues were entirely destroyed, leaving only bare bone.

The left lung was compressed to a small mass, not larger than a man's fist, and was undoubtedly in a state of complete carnification, both air-vesicles and blood-vessels being obliterated to a marked degree. Many of its bronchi protruded beyond the surface of the compressed lung, and although sealed at their protruding ends, had apparently been open during life. The right lung filled the side of the chest, and was one group of large and small cavities, surrounded by zones of cheesy masses.

The spleen was waxy, and weighed seven and one-half ounces. The kidneys were enlarged, and the seat of the ordinary chronic parenchymatous degeneration of phthisis. The left kidney was occupied by several large, cheesy masses. There was no intestinal ulceration, but nearly all the mesenteric glands were markedly enlarged. The liver was enlarged and fatty.

The specimens were of interest because they showed the difference between a carnified lung from simple compression, in that the bronchi resist destructive changes longer than does the pulmonary tissue, and may protrude beyond the surface of the lung, and open into an empty chest cavity. The case was also notable as one showing that a free opening into a pleural cavity which contains pus may relieve the sufferings of the patient and prolong life.

PRIMARY SARCOMA OF THE KIDNEY—SARCOMA OF THE HEART —FALSE CARNIFICATION OF THE LUNG.

Dr. W. H. Porter also presented a primary sarcomà of the left kidney, with following history: Mrs. K——, twenty-five years of age, about five months prior to death gave birth to an apparently healthy child. One month later she noticed a tumor in the right side of the abdomen, which rapidly enlarged. One week before death she came to the Presbyterian Hospital for surgical relief; but as she was not a fit subject for operative interference, she was transferred to the medical side, under the care of Dr. McBride, to whom he was indebted for the specimen. As she seemed very near death, no accurate history was obtained. Unilateral œdema, however, was noticed, affecting the left leg. She died a few days after admission.

Necropsy by Dr. Simpson, house physician, twenty-four hours after death.—Rigor mortis marked. Body rather spare. There was a decided protrusion of the abdomen in the left lumbar region.

Thoracic cavity.—The pericardial sac was normal. The heart was unusually small, but was not weighed, as the heart and lungs were removed *en masse*. There was a small, whitish lump in the substance of the left ventricle, about the size of a hazel-nut, and this new-growth, which was apparently of the same character as that in the kidney, involved the whole thickness of the ventricular wall. Aside from this, the heart was normal throughout, but its apex was pushed over to the median line from the presence of a large quantity of fluid in the left pleural cavity. The left lung was compressed to a very small size, as the cavity contained about one hundred and fifty ounces of clear, serous fluid, and was covered with a fibro-plastic exudation. This left lung, although very much compressed, admitted both air and blood—differing in that respect from the truly carnified lung. Both the costal and diaphragmatic pleuræ presented a very soft, velvety surface, of a pinkish-red color. The diaphragm was thickened by an infiltration of the sarcomatous growth, and, upon microscopical examination, was found to be made up principally of normal connective-tissue corpuscles imbedded in a homogeneous matrix; here and there in the section a striated muscular fibre was imbedded.

Abdominal cavity.—The points of special interest were in the abdominal cavity, which contained about fifty ounces of fluid. The spleen was very soft and small, weight one and one-half ounces: it lay adjacent to the tumor on the left side, but was not infiltrated or implicated by the new-growth. The left kidney was the seat of a new growth which had converted it into a tumor weighing three pounds; and when cut open, it measured five inches from the superior to the inferior border; and from the cortex to the pelvis, three and one-half inches. Its capsule was very much thickened. The pelvis was partially obliterated, the remaining cavity being filled with a grumous matter. The ureter was slightly dilated, and its wall very much hypertrophied. Upon microscopical examination, very little renal tissue was mêt with, but the mass of the growth was sound connective-tissue corpuscles imbedded in a homogeneous matrix. The right kidney also contained three masses of new-growth of the same nature; but about one-half of its renal tissue remained.

The retro-peritoneal glands were not involved. The alimentary tract was nearly normal, excepting the duodenum and stomach. The left side of the second portion of the duodenum was firmly adherent to the left kidney, the growth implicating the coats of the gut to such an extent that the mucous membrane at that point presented a white patch of the same consistency as the tumor itself. The splenic flexure of the colon was adherent to the tumor and displaced downward, but was not infiltrated by the neoplasm. The stomach was displaced, the greater curvature being carried down and forward; and was enormously dilated, evidently due to a twisting of the duodenum, which partially occluded its lumen. The posterior wall of the stomach lay against the tumor of the left kidney and firmly bound to it, but the growth had not invaded its coats which were, however, very soft and easily torn. The mucous membrane also was soft and boggy, and the seat of a number of ulcers varying in size, the largest being about the size of a one-cent piece: at seventeen places the mucous membrane was completely destroyed. There was no obstruction at the pyloric opening.

The ovaries were slightly enlarged, and the seat of numerous small cysts. Otherwise, the genital tract was normal.

The case was of interest on account of the rareness of this variety of this form of tumor in the kidney: with regard to its extension to the opposite kidney and its propagation through the diaphragm, while the stomach and colon, which were equally as adherent, were not involved: also as bearing upon comparative pathology in connection with a specimen of sarcoma of the kidney in a cow, presented at one of the meetings last winter, by Dr. T. E. Satterthwaite.

CARCINOMA OF THE BLADDER.

Dr. Porter also presented a specimen which he removed from a horse. There were secondary deposits in the retro-peritoneal glands. The animal was a gray gelding, sixteen or eighteen years old, thin in flesh, and had been in poor health for one year previous to death. During this time he had been subject to repeated attacks of colic, and for that reason was turned out to grass. About three years ago, he had turns of standing with outstretched legs, apparently straining with a desire to micturate: from these symptoms, however, he apparently recovered, although prior to October 14th, 1881, the horse had been treated by a veterinary quack.

After that date, Dr. George H. Parkinson, of Middletown, to whom Dr. Porter was indebted for both the history and the specimen, saw the case, and learned that the previous treatment had consisted simply in the administration of diuretics.

Symptoms, October 14th.—Pulse 40, and very feeble. Respirations not disturbed. Abdomen distended, the animal having just drunk a large quantity of water. Œdematous swelling of the sheath and of the tissues on either side of linea alba to the posterior limit of the sternum.

There was a discharge from the nostrils, the mucous membrane of which was of a bluish or copper color. Appetite poor. It was noticed that the animal frequently attempted to micturate, passing each time only a very small quantity of bloody urine, with a few small coagula. The passage of the urine and clots caused great pain.

A rectal examination was made, but the bladder could not be found; but in place of the partially distended bladder, commonly felt by rectal examinations, there was a large mass or tumor to the right of the median line, and anterior to the symphysis pubis. When this lump was pressed, the horse groaned as if from pain, and passed a small quantity of bloody urine, containing several small clots.

A diagnosis of malignant growth, probably carcinomatous in character, was made, an unfavorable prognosis given, and no treatment was instituted except rest in pasture.

October 25th.—The animal became so weak that he could not get upon his feet, and was killed.

Necropsy, a few hours after death.—The abdominal cavity was well filled with fluid, having a strong, urinous odor. Both the parietal and visceral layers of the peritoneum were studded with tubercle-like masses, varying in size: probably enlarged retroperitoneal glands. The mesentery and omentum appeared to be converted into a solid mass of these new-formations.

The liver and spleen were both much enlarged, and also had several small nodules upon their surfaces, resembling those in the mesentery. The liver was pigmented and slightly cirrhotic on microscopic examination.

The stomach was full of fluid, and also contained a little grass; its mucous membrane was of a deep-yellow color, probably from post-mortem bile-staining.

The inguinal glands were enlarged, and where cut open showed points of fatty degeneration.

Microscopical examination of the tumor of the bladder and the enlarged glands.—The new-growths were made up of dense masses of fibrillated connective tissue, forming numerous alveolar spaces, which were filled with large, irregularly-shaped, nucleated epithelial corpuscles; but there was no special order of arrangement of the epithelial elements. The sections closely resembled the conditions commonly met with in the scirrhous carcinoma of the breast. The specimen is of interest in connection with comparative pathology, which is rapidly gaining prominence in all countries.

PREHISTORIC SYPHILIS (?)—A TIBIA.

Dr. F. N. Otis presented a tibia sent to him by Dr. D. L. Huntington, Assistant Curator of the Army Medical Museum at Washington, which had been received from Dr. Bickley, who found the bone, with others, in one of the ancient Indian mounds near Alexanderville, O. It was supposed that it possibly might possess some interest with reference to prehistoric syphilis, and, therefore, had been sent to Dr. Otis for examination. Attention had been called to this bone in an article on prehistoric syphilis, by Dr. Gustave Brühl, in the *Cincinnati Lancet* of May, 1880. The specimen presented was evidently of great antiquity, and, in view of instituting some comparison between it and bones known to be affected with syphilitic disease, Dr. Otis had made three lections of well-authenticated syphilitic bones, in order that it might be compared with these, and also with perfectly normal bone, of which he also presented specimens. He believed it was tolerably well settled at the present time among scientific investigators that there was nothing absolutely specific to be found in syphilitic bones; that the inflammatory processes were in the line of ordinary pathological changes; that periostitis, ostitis, caries, and necrosis were precisely the same, so far as the constituents of the diseased bone were concerned, when associated with syphilis, as those caused by injuries or by non-specific disease. He believed, however, that we might occasionally decide with probable accuracy. For instance, where the ossific deposits or nodes were multiple and symmetrical, as when occurring on both tibiæ; and especially when associated with bony deposits at points protected from ordinary injury, as on the inner tables of the skull, then such coincidences would give strong support to the conclusion that the origin of the trouble was syphilitic. But when it is remembered that rheumatism, rachitis, traumatism, and other causes of periostitis may, equally with syphilis, produce the eburnated variety of exostosis, it will readily be seen how difficult an absolute diagnosis may become.

In the present specimen there was no exostosis—simply an hypertrophy, partly of the cancellous and partly of the eburnated varieties—just what is seen in parenchymatous ostitis from simple causes.

Dr. Otis could not find in the specimen anything which would lead him to suppose that the diseased condition present was of syphilitic origin. He believed that only one form of bone disease had been recognized which was truly characteristic of syphilitic disease, namely, that which Virchow had called dry caries, and specially found in syphilitic disease of the bones of the skull. In these cases there is first a deposit of gummy material; the bone structure is then absorbed, perhaps both of the external and the internal table, sometimes completely. Where the external table only is destroyed, the integument may not be involved at all, and the disease often exists without the consciousness of the patient; without pain, etc. He had seen a case characterized simply by depressions found upon different parts of the skull. This form of bone disease he had never known to arise from any other cause than syphilis.

Dr. Peabody confirmed the opinion given by Dr. Otis with reference to the specimen presented, and believed that its appearance was not different from that presented in bones which had been the subject of ordinary ostitis. Even the thickening which it exhibited could be easily explained by the existence of inflammatory processes independent of specific disease.

Inquiry was made of Dr. Otis whether Virchow did or did not consider the dry caries specific in its nature; to which he replied that Virchow made the statement that he (Virchow) believed this affection to be peculiar to syphilis: basing this belief, not on any specific element found in this lesion, but on the fact that the chief characteristic of the dry caries was the entire absence of suppuration. Dr. Otis did not think the lesion in question can be directly termed a caries. It is not suppuration nor death of bone; for the loss of bony substance which occurs is plainly due to absorption, preceded by fatty degeneration, resulting from the presence of gummy material deposited, or, rather, imprisoned in the cancellous structure of the bone. Further, this gummy material does not differ in its appearance or physical properties from the gummy material deposited in the soft tissues. When caries or death of bone occurs, more or less suppuration is inevitable. Analogous to this is the absorption of the gummy material with cicatricial depression, and without suppuration, in the tubercular syphilide. Virchow states that the chief characteristic of the so-called dry caries of syphilis is *the entire absence of the suppurative process.* In closing, Dr. Otis remarked that Rindfleisch, in his "Pathological Histology," states distinctly that there is nothing texturally different in the osseous inflammations, caries, and necrosis of syphilitic origin from those resulting through non-specific causes.

FLOATING CARTILAGES IN THE KNEE-JOINT.

DR. A. P. GERSTER presented two specimens of floating cartilage of the knee-joint, removed from two different patients, and exhibiting the two varieties of floating bodies which are found in this joint. The first variety of these bodies is caused by traumatism: a particle of the joint-surface is chipped off, and lies loose within the cavity. The other kind is one in which the floating body is produced by essential disease of the synovial membrane: it is first a villous growth of the synovial membrane, parts of which gradually calcify, then become detached, and form floating bodies. It is obvious that, after having removed a loose body of traumatic origin and short duration, we shall be able to promise a good cure and complete restitution of the functional ability of the joint. But the prognosis in the villous variety of floating bodies is not so good, by far; their removal is more difficult, involving a good deal of irritation of the synovial membrane, and even their complete extraction does not insure against a recurrence of the disease. Yet we can now say that irrigation of the joint with a strong solution of carbolic acid during the operation may so influence the synovial membrane as to check the chronic state of inflammation that causes the proliferation of the membrane, and thus effect a radical improvement.

The first of the specimens presented was of traumatic origin: one surface was smooth and cartilaginous; the other was rough, and presented a disk which apparently corresponded with the point of attachment. He was unable to say from which part of the joint it came: it was removed from a young man who fell from an elevation, and ever since the receipt of the injury had noticed a foreign body in the knee-joint. Occasionally this became impacted between the joint surfaces, causing intense pain and acute inflammation, with extensive effusion into the joint. The patient came under Dr. Gerster's care in the German Hospital, in September last, where he operated for its removal under complete antiseptic precautions. The outside of the joint was shaved, washed with ether and a carbolic acid solution: the floating body was then fixed by the fingers of an assistant on the inner aspect of the joint, where a semilunar incision was made through the skin, fascia, subcutaneous tissue, down to the capsule, which was then incised close to the base of the semilunar flap, and the foreign body readily removed: but quite a large quantity of sanguinolent synovia escaped from the joint. The synovial membrane was sutured with carbolized catgut, and the external incision was also closed with sutures: thus the wound was converted practically into a subcutaneous wound, because the incision through the skin and that through the capsule did not exactly correspond. Primary union followed, the man got up two weeks afterward, and subsequently regained full use of his joint.

In the second case, the patient was a girl, fourteen years of age. The villous growth originated from that mass of connective and fatty tissue which is found below the patella and beneath the ligamentum patellæ proprium. There was no history of traumatism, and apparently the synovitis was not caused by the presence of the floating body, but the latter was the result of an essential lesion of the synovial membrane. The patient was laid up nearly every ten or fourteen days, on account of the sudden development of pain and copious effusion into the joint. Several gentlemen, by whom she was seen at the instance of her family physician, regarded an operation for its removal exceedingly dangerous, and advised against it. Dr. Gerster saw the patient early in December, 1881, with her family physician, Dr. Scharlau, and, upon examining the joint, found upon the inner aspect, at a point corresponding to the inner margin of the patella, several floating bodies, tolerably movable, but not entirely detached. He assumed that these bodies were adherent upon the inner side of the patella, and proposed to remove them. It was apparent that the joint was suffering more and more in consequence of the presence of these bodies; and, although the operation is a notoriously dangerous one, it was finally decided to have it performed, which was accordingly done on December 5th. An incision was made upon the inner side of the joint, midway between the margin of the patella and the inner condyle, and care was taken to ligate every vessel before proceeding further, so that when the capsule of the joint was reached the wound was perfectly dry. A small cut was then made, about one centimetre in length, into the capsule, and one of these bodies was easily exposed and seized; but, to his astonishment, he found that it was connected with a large, clustering mass, which he was unable to remove on account of the small size of the first incision. He therefore enlarged the wound to the extent of an inch and a half, and turned the false growth out of the joint. The base measured half an inch each in length and width, and the distance from the base of the growth to the tip was about one inch. It had a deep-orange color, and was covered with a pannus of vessels. It was gradually separated by scissors: the hemorrhage was very slight. The joint was washed out with a five-per-cent carbolic acid solution, and the wound was left partially open. Two drainage-tubes were introduced, between which the synovial membrane was sewed up, and finally the external incision was drawn together with six or eight sutures. Then a Lister dressing was applied, and also a dorsal plaster-of-Paris splint, in order to secure perfect rest to the joint. On the third day, the first dressing was changed: there were no inflammatory changes about the wound, and the Lister dressing was again renewed. The elevation of temperature was very slight, but on the fourth or fifth day, the patient had an intense colic, which was believed to be due to constipation succeeding the use of morphia, as it entirely disappeared after she had had a free evacuation from the bowels, aided by repeated enemata. The pulse also, which had steadily been high—120—diminished in frequency very quickly and remarkably down to 80, after the first copious movement from the bowels. On the fifth day, the drainage-tubes were removed, cleansed, shortened, and so replaced as to merely keep the incision in the skin open, and the dressings were re-applied. These dressings were left on three days more, and day before yesterday, he removed the drainage-tubes altogether. At the present time, the joint presents a perfectly normal appearance: there was no irritation of the synovial membrane, and the secretion from the joint was practically none. Dr. Gerster intended to resume passive motion as soon as possible, and hoped to restore the joint to its complete usefulness.

In this connection, he mentioned a third case of floating body, which was interesting on account of the cure effected by the patient himself. A young man, a laborer, had a floating body in the knee-joint, the result of traumatism. Dr. Gerster advised its removal, and directed the patient to enter the German Hospital, but on his way met a friend, who advised him to use great force of extension whenever the piece became impacted in the joint, and told him that in that way he could break it up and cure himself. While walking to the hospital, the floating body became impacted in the joint, and the patient, following the advice of his friend, actually crushed it, so that when he reached the hospital the house surgeon was unable to detect any foreign body whatever. On the following morning, Dr. Gerster went to arrange for the operation, but found that the lump was gone. After the acute synovitis which was set up by this heroic method had subsided, the patient was cured, and was dismissed from the hospital without operation. Dr. Gerster had seen him within the last two hours, and he was unable to find the floating body, and believed that the patient had succeeded in crushing the cartilaginous mass successfully.

In view of the dangers attending this class of operations, he had the patients and the room in which the operation was to be performed specially prepared. The room was thoroughly cleansed, the carpets were removed, the floors were scraped, the walls were newly covered with whitewash prepared with a five-per-cent solution of carbolic acid; all the wood-work was brushed, and new beds were furnished. Finally, all persons coming in contact with the patient, the instruments, or the dressings, and everything in the room had to be disinfected in the doctor's presence; and during the operation the usual antiseptic precautions were observed.

Dr. Robert Newman referred to a case in which a plan of treatment, similar to that adopted in Dr. Gerster's third case, was followed. The patient, a lad, fell upon a railroad track and struck his knee upon the rail, and from that moment he was unable to walk. The knee subsequently became stiff, and was constantly painful. Dr. Newman examined the joint carefully, as also did Dr. Frank H. Hamilton and Dr. Samuel Ward, both of whom concurred in his diagnosis that a portion of joint-substance had been chipped off and was floating in the cavity. The treatment which he adopted was to break up the adhesions completely; he then displaced the floating cartilage, brought it into a position where it could not do any harm, bandaged the knee, applied a dorsal splint, and kept the patient perfectly quiet. He remained in bed nearly four weeks, and after that had no further trouble with the joint. The injury was received six years ago, and the patient remained well. Dr. Newman also referred to a case which came under his observation eighteen years ago, in which he operated almost in the same manner as had Dr. Gerster in his second case. The incision was made, the foreign body was hooked out with a little spoon, and the patient made a good recovery. He believed, however, that floating cartilages in the knee-joint were always the result of traumatism.

REMOVAL OF THE GREAT TOE-NAIL.

Dr. Robert Newman then presented a great toe-nail recently removed by operation. It was partially dead, and had produced irritation sufficient to cause a very large sore. Against his usual method of treatment, he removed it, and since that time the irritation had entirely ceased. On inspecting the specimen, he discovered evidence that a new nail was rapidly growing, which caused him to regret that he did not adhere to his usual treatment.

FIBRO-MYXO-SARCOMA OF THE LARYNX.

Dr. L. **Elsberg** presented a specimen with the following history: Dr. M——, a German physician, seventy-four years of age, consulted him July 29th, 1881. In early life he had sung a great deal, but fully thirty years ago his voice had become veiled, and mucus accumulated in his larynx. About fourteen months ago, he had an attack of strangling, ascribed by him to "a severe cold" and drinking very cold beer: since then his voice was reduced to a mere whisper. For six months he had felt some pressure on his larynx during deglutition, which had lately become painful: he breathed comfortably only in certain positions; had paroxysms of cough, and in sleeping could lie on the right side only. He had a sudden attack of dyspnœa two weeks before in Fulton street, Brooklyn, caused by turning his head suddenly; he thinks this attack lasted fifteen minutes and it nearly killed him. For an hour his breathing was very stertorous, and he expectorated bloody mucus for a much longer time. He was very much exhausted for several days, but gradually recovered. He thinks he breathes normally at present, but Dr. Elsberg noticed that he easily got out of breath during the examination. The laryngoscope showed a very large tumor attached to the right side of the larynx, projecting above the vocal bands. An operation was advised for its removal without delay; this being objected to, a prophylactic tracheotomy was proposed, on account of the large size of the tumor: but all operative interference was refused.

During the month of August, with the exception of occasional more or less severe attacks of dyspnœa, the patient felt well and managed to attend to his professional engagements. Dr. Elsberg was very solicitous about his case, and sent him a message to prepare for the necessity of sudden tracheotomy: but he never saw him alive again. On the morning of October 27th, he left his house, in Eighth street, to visit some patients: towards noon he entered the room of a friend in One hundred and Twenty-seventh street, about six miles distant from his own residence, and after removing his hat and gloves, showed signs of suffocation; his gesticulations were misunderstood, and though a physician was called, he died.

Two days later, the autopsy was performed by Dr. M. Waterman, Deputy Coroner, to whose kindness Dr. Elsberg was much indebted. The larynx having been opened posteriorly, the mass, of the size of an elongated small walnut, was seen occupying the whole right side: its middle portion on a level with the right vocal band. The tumor was slightly pear-shaped; its broadest part corresponded exactly to the median line of the larynx; the narrow portion extended horizontally toward the posterior wall. On closing the larynx, it was seen that the tumor completely filled its lumen, and its broadest and highest portion pressed against the left ventricle, which was slightly widened. The tumor was lobate; the largest lobes corresponded to the broadest extremity of the tumor, the smallest ones were posteriorly. The anterior surface of the mass was flattened and deeply fissured. Lengthwise, viz., in the direction of the vocal band, it was divided by a very deep fissure into two almost equal portions, which were connected by a flat pedicle, which was the vocal band itself, projected into the tumor and attached in the depth of the fissure. The largest lobe, *i. e.*, that nearest to the median line, was imbedded in the right ventricle, which, from the pressure against it, was considerably widened, more so than the left, and toward the middle line to such a degree that the ventricular band had completely disappeared. The tumor was of medium consistence, and of pale-pink color, with numerous ramifying blood-vessels.

Microscopical examination.—He had not yet finished its histological study, but could say that, under the microscope, it proved to be covered by stratified epithelium, underneath which there were bundles of fibrous connective tissue, inclosing large meshes of a myxomatous basis-substance. The main mass of the tumor consisted—at least at the place from which thin sections had been removed for examination—of a delicate reticulum, the meshes of which had a shining, nearly homogeneous basis-substance. Some portions, especially comparatively near the surface, were composed exclusively of a very little connective tissue, and the relatively large globular bodies, known to be characteristic of Virchow's "large, round-celled sarcoma." The tumor, therefore, was a specimen of fibro-myxoma which had lately become sarcomatous.

"The tumor must have grown rapidly of late, but there can hardly be a doubt that it could have been safely removed when I saw it, or even later. The life of the patient, who, despite his years, was in vigorous good health, could certainly have been prolonged either by the removal of the tumor or by simple tracheotomy. In the present state of our knowledge, and of our achievements in laryngology, such a death as the above ought not to take place; and it probably would not have occurred if the patient had not himself been a medical practitioner, strongly prejudiced against operative interference in his own case."

NASAL DIPHTHERIA—BRONCHO-PNEUMONIA.

Dr. J. Lewis Smith presented one lung, the larynx, and the trachea from a child, two years and eight months old, who died with the common history of diphtheria. In the latter part of October, it had pharyngitis, but no pseudo-membrane had been observed: after this had continued ten or twelve days, the mucous membrane of the nose became inflamed, with more or less obstruction to breathing through the nostrils. The patient had persistent fever, with corresponding acceleration of the pulse, sometimes reaching as high as 140 or 150, but no rash was observed, so that scarlet fever was excluded; and, from the severity and persistence of the coryza, a diagnosis was made of nasal diphtheria. In a few days the physical signs of broncho-pneumonia occurred, and the cough began to be croupy, and the breathing noisy. Inhalations of lime-water, with one-fortieth part of liquor potassæ, were administered, after which the obstruction to the respiration diminished somewhat; but the evidences of pneumonic consolidation continued, and the patient died about a week after the commencement of the laryngeal obstruction: apparently from general exhaustion as much as from dyspnœa.

At the *autopsy*, there was a thin film of membrane extending along the larynx and over the tracheal surface, intimately blended with the laryngeal mucous membrane, but it lay upon the tracheal surface without penetrating it. The point of special interest in the case was a therapeutical one. At the New York Foundling Asylum, some experiments had been instituted with a view to determining what is the best

SOLVENT FOR PSEUDO-MEMBRANES,

and one which could be safely used by inhalation. As the result of the experiments, the two which have been found to be the safest and most efficient were liquor potassæ and liquor sodæ, in the strength of two, or two and one-half per cent: *i. e.*, liquor potassæ, or liquor sodæ, one part to forty or fifty of water. These remedies can also be used in combination with lime-water (although one is a solvent, and the other an astringent), and they may be employed at the same time, both in the boiler and cup of the steam atomizer. Dr. Smith also stated as the result of observations and experiments made in the same institution, that lactic acid, with the acidulated liquid pepsin, had not been found to be so good a solvent as even the officinal lime-water.

DR. L. ELSBERG remarked, with reference to solvents, that they operated differently on the inside than upon the outside of the body. He had found bromine to be much more efficient than either lime-water or lactic acid, or liquor potassæ, or liquor sodæ.

DR. SMITH asked if bromine, used as an inhalation of sufficient strength to dissolve membrane, would not be too great an irritant.

DR. ELSBERG said that, used properly, it did not produce irritation. He used one grain of bromine with one drachm of iodide of potassium, in one ounce of water, poured into a cone from which the patient inhaled the fumes. He had found that it dissolved the membrane outside the body better, and, apparently, inside better than either lime-water, or potassa, or soda.

NOTE.—In Vol. I. of the Transactions, pages 68 to 70, several cases of diphtheria are reported by Drs. Sabine, Markoe, Willard Parker, and J. C. Peters, in 1845 and 1846.

ANEURISM OF THE RIGHT AND LEFT PULMONARY ARTERIES—PULMONARY INSUFFICIENCY—DILATATION OF THE RIGHT VENTRICLE.

By Dr. John F. Duffield, *Candidate.*—Dr. W. H. Porter, at the stated meeting, September 28th, 1881, presented the specimen, with the following history:—S. C., female, æt. 50 years, N. Y., widow, domestic, was admitted to Presbyterian Hospital August 4th, 1881; in the service of Dr. Alexander Hadden. Family history negative. The patient says that about nine years ago she had an attack of pneumonia. Previous to this she had enjoyed fair health, but ever since has suffered more or less from palpitation of the heart, with vertigo; she has also been subject to subacute rheumatic attacks for a period extending over four years; and now suffers from one, in addition to dyspnœa and a slight cough. Menses began at eighteen years, and were always normal. Has had three children; labors easy. Complains of great nervousness. No history of syphilis. Habits temperate.

On admission, was very anæmic; general condition poor; lips and finger-tips blue; jugulars full, but no appreciable pulsation; œdema, with prominent veins in each leg; anorexia; tongue pale, flabby, and indented; bowels fairly regular; pulse weak, irregular, strikes the finger suddenly, and immediately collapses; a perceptible thrill in all the superficial arteries.

Urine (sp. gr. 1.002), acid, straw color, no albumen or casts.

Physical examination.—Pigeon-breasted; lungs emphysematous at apices; area of cardiac dulness increased; apex-beat plainly perceptible in seventh interspace, to the left of the nipple; some episternal pulsation; a diffused heaving thrill perceptible with the systolic contractions over an area of several inches between the nipple and the sternum. Auscultation reveals a loud, blowing murmur taking the place of the second sound of the heart, diffused over nearly all the præcordial space, but most distinct midway between the left nipple and the sternum and about one inch above, and transmitted toward the xiphoid cartilage. At times the character of the sound is almost that of a double murmur.

The diagnosis of aortic insufficiency was made by all who examined her. Search was made for signs of aortic aneurism, with negative results.

Treatment.—Extra plain diet; bandages to legs. Tr. fer. chlor., ♏x. ter i. d.; Tr. digital., ♏x. ter i. d.

August 9th.—General condition somewhat improved; better color; heart-action much more regular, but murmur more intense.

August 13th.—Last night had extreme dyspnœa and palpitation; was dizzy and much distressed. The systolic beat was very strong and firm, the heart remaining contracted in systole every fourth or fifth beat, and intermitting one beat every time; murmur very loud. Ordered exclusive milk diet; substituted for digitalis, Sol. morph., U. S. P., ʒ i. every four hours.

August 14th.—Heart's action fairly regular, but weak; vertigo; the patient is flighty; breathing hurried and shallow; mucous membrane not so blue as yesterday; feet cold; œdema of legs undiminished. Ordered hot bottles, Ammon. carb., gr. v., p. r. n., and stopped pro tem. all other medicinal treatment.

August 15th, 6.30 A.M.—The patient was found in a moribund condition; venous congestion extreme; œdema of lungs; Cheyne-Stokes respiration; pulse very weak, irregular, and intermittent. She failed to respond to usual treatment, and died at 10.30 A.M.

Necropsy, twenty-four hours after death.—Rigor mortis well marked. Body fairly provided with adipose tissue.

Thoracic Cavity.—The pericardial sac contained four ounces of bloody serum. The heart was considerably enlarged, and displaced towards the left: the hypertrophy, however, was confined entirely to the right side. the left heart being diminished, if anything. Weight of heart, seventeen ounces. The valves of the left side were perfectly free and sufficient; there was, however, slight evidence of commencing fatty degeneration of the mitral valve. The aortic valves and the aorta were perfectly normal. The muscular substance of the left side was free from fatty degeneration. There was one small milk-patch on the anterior surface of the right ventricle. The right ventricle was greatly dilated and its walls somewhat hypertrophied. The tricuspid valves showed advanced fatty degeneration and commencing atheroma: the margins of the valves were thickened and widely separated, allowing free regurgitation.

The pulmonary orifice was dilated, and the segments of the valve elongated and thinned. The pulmonary valve was found sufficient by the ordinary water test, but probably would not have been so, under considerable pressure, owing to the extreme thinness and great length of the segments.

The pulmonary artery and its right and left branch were widely dilated throughout. Both the pulmonary valve and the artery showed marked evidence of advanced atheromatous degeneration. The right pulmonary artery was the site of a large aneurism, which apparently commenced, at the junction of the superior and anterior portion, as a dissecting aneurism. The superior and posterior portion seemed to have become dilated at a later period, and was filled with fibrin, which, at the necropsy, appeared to be granular. The aneurismal tumor was about the size of a duck's egg: length, two and three-quarter inches; diameter, two inches. The numerous branches springing from this aneurismal dilatation were also dilated, and many of the small twigs, too, seemed to be so.

The left pulmonary artery was also the seat of an aneurism, located at about the same point as the one just described, and approximately of the same size. This left, as well as the right aneurism, was filled with granular fibrin, but there was no evidence of any dissection of the coats. The arteries springing from the left aneurism were also dilated, even to the very surface of the lung.

The lungs were slightly adherent to the chest-wall. The pulmonary tissue was perfectly normal, excepting a deep congestion, some œdema, and a slight amount of emphysema of the apices.

Abdominal Cavity.—The spleen was soft, dark-blue in color, and weighed only four ounces. Nothing especially abnormal was noticed in the alimentary canal.

The kidneys were very small, the right weighing three and one-half, the left two and one-half ounces. Their capsules were slightly thickened and extensively adherent. The underlying renal tissue was finely granular.

Microscopical examination.—There was large increase in the interstitial renal tissue and a slight granular degeneration of the epithelium (*sclerotic kidney*).

The liver was small, although it was congested, pigmented, and slightly fatty. Its weight was only forty-one ounces.

The portal vein, its branches and their tributaries were distended with blood.

RECORD OF CASES OF ANEURISM OF THE PULMONARY ARTERIES.

The following record of cases, which is as complete as could be obtained from the accessible libraries, was compiled by Dr. W. H. Porter, curator of the hospital, and Mr. Dietz, student at the College of Physicians and Surgeons, and will serve to show not only the extreme rarity of pulmonary aneurism, but the unique nature of the specimen presented.

Ambrose Paré mentions a case of a tailor named Belanger, who had an aneurism of the pulmonary artery, of which he died suddenly, in consequence of the vessel bursting while he was playing at ball. Paré found a large quantity of blood effused within the thorax, the body of the artery dilated to the size of a fist, and its lining membrane quite ossified. "*Observations on Aneurism,*" *by John Erichsen. London,* 1844.

Lancisus mentions the case of a hatter, who "in consequence of too great exertion, especially of an afternoon, in beating the felt of which hats are made, and inhaling, at the same time, coal-smoke mixed with a watery vapor, became affected with a dilatation of the pulmonary artery." *De motu Cordis et Aneurismatibus. Opus Posthumum. Lugdini Bat.,* 1749. *Also quoted by Erichsen.*

Crisp says: "Dilatation of this artery (*i. e.,* pulmonary), although not often described, is probably far from infrequent."

"*Hope* relates an example, where the artery was dilated to four and one-half inches in circumference; and in case No. 84, ['Table of arteries,'] the circumference of the vessel had increased to the same extent."

"In the museum of St. Bartholomew's Hospital (No. 90), there is a specimen of aneurism, with deposit of fibrin, in the left branch of the pulmonary artery."

"*Mr. Adam*, in the second volume of the Calcutta Medical Society's Transactions, mentions a case of sudden death from the spontaneous rupture of this artery. The vessel was also considerably dilated, probably aneurismal."

"Two cases (117, 359) of aneurism of the branches of the pulmonary artery will be found in the Table of aneurisms. I know of no case of aneurism of that artery before its division."

Cases alluded to by Crisp:

Case No. 177.—Male; æt. 29; authority: *Edinburgh Monthly Journal of Medical Science*, vol. iii.; cause of death: hæmoptysis; attendant: Dr. Peacock.

Case No. 389.—Male; æt. 41; authority: *Lancet*, 1841; cause of death: hæmoptysis; attendant: Mr. Foster.

According to Crisp's table, out of five hundred and fifty-one cases of spontaneous aneurism reported in Great Britain from 1785 to 1847, only two were of the pulmonary artery. *Crisp, prize essay, Diseases of Blood-Vessels, London,* 1847, *p.* 91.

Dr. Dlauhy (*Vierteljahrschrift für Prakt. Heilk.*, 1848) mentions a case of pulmonary aneurism. The vessel was in a state of well-marked atheromatous degeneration. On the posterior aspect was a sacciform aneurism of the size of quite a large walnut. The cavity extended particularly towards the right, its walls lying upon the left auricle, and producing a shallow indentation upon the latter. The parietes were composed of the degenerated atheromatous arterial tunics, held together by the serous covering of the pericardium; its cavity communicated with the lumen of the vessel by means of an oval opening an inch in diameter, and, as usually in cases of aneurism, was filled with fibrinous clots. On the posterior wall of the artery, running in the direction of the circumference of the vessel and extending through the pericardial covering, was a rent measuring 1″ 3‴ (Viennese) in length: its edges were ragged, uneven, and everted towards the cavity of the pericardium. Towards the right, the pericardium between the rent and the adjacent aorta had been torn away and was pierced in a cribriform manner.

Prof. Gilewski's case (*Wiener Med. Woch.*, Nos. 33–38, 1868). The autopsy showed a sacciform dilatation of the pulmonary artery, its circumference being equal to that of a pomegranate. The anterior wall united with the pericardium; the latter and posterior walls, in relation with the adjacent vessels, were connected respectively with the aorta and the left auricle by means of short-fibred connective tissue. The axis of the sac corresponded with that of the artery. The sac itself contained considerable blood and fibrinous clots. Its walls consisted of all the tunics of the artery: the anterior, in addition, being covered by the parietal layer of the pericardium. The inner tunic was very much thickened and degenerated. The sac involved the *trunk* of the artery, and its two short branches arose immediately from the sac. The cardiac opening of the pulmonary artery was very much increased in size: the semilunar valves were correspondingly enlarged, smooth, and translucent, and one of them near its free border presented an opening the size of a pin's head.

Dr. Dowse's Case (*Lancet*, 1874, vol. ii.).

"Dr. Dowse exhibited further a case of aneurism of the pulmonary artery which occurred in a young woman aged nineteen. . . . At the autopsy, recent lymph covered the outer surface of the pericardium and adjacent pleura; while fresh lymph and a small quantity of blood was found in the cavity. *At the root* of the pulmonary artery was a globular tumor of the size of a pullet's egg. A rent had occurred in the outer wall of the aneurism, of which the sac was filled by a firm clot. There were vegetations on the pulmonary valves: the right ventricle was dilated; and the tricuspid valve incompetent.

Skoda's Case (*Abh. über Perk. und Auskult.*).

The autopsy showed the trunk of the pulmonary artery to be dilated to a sac of the size of a goose's egg. The ventricular opening was somewhat enlarged, the valves normal and sufficient. The lumen of the two primary branches of the vessel, at their point of origin from the sac, was reduced to the size of a crow's quill. The right branch was somewhat hypertrophied and dilated: the left was normal. . . . The tunics of the aneurismally enlarged pulmonary artery exhibited the same changes usually seen in the aneurisms of the aorta.

Note.—In vol. i. of the Transactions, pages 128 to 187 four cases of aneurism of the pulmonary artery from the records of this society are published, and the history and diagnosis of many others are given. The four cases were presented by Drs. Geo. T. Elliot, Charles C. Terry, W. M. Chamberlin, and John C. Peters.

STATED MEETING, DECEMBER 28TH, 1881.

DR. THOS. E. SATTERTHWAITE, *President, in the Chair.*

LIST OF CASES AND SPECIMENS PRESENTED.

1. Multiple fracture of the ribs; croupous pneumonia; intermeningeal hemorrhage. By DR. HARVEY A. MANDEVILLE, *Candidate.*
2. Diphtheritic laryngitis....By DR. WM. I. SWIFT, *Candidate.*
3. Reticulated round-cell sarcoma of the orbit, with secondary growths containing melanotic deposits. By DR. WM. H. PORTER.
4. Incarcerated femoral epiplocele; removal of the mass; recovery. By DR. JOHN A. WYETH.
5. Cysto-adenoma of the thyroid gland. By DR. JOHN A. WYETH.
6. Atrophy of the lung..........By DR. BEVERLEY ROBINSON.
7. Calcareous degeneration of the aortic and mitral valves. By DR. BEVERLEY ROBINSON.
8. Mitral stenosis...............By DR. BEVERLEY ROBINSON.

DR. WILLIAM H. PORTER, on behalf of a candidate, presented a specimen of

MULTIPLE FRACTURE OF THE RIBS—CROUPOUS PNEUMONIA—INTERMENINGEAL HEMORRHAGE.

Casper Kaber, æt. 27, German, married, painter, entered December 21st, 1881, the Presbyterian Hospital, in the service of Dr. J. H. Hinton. About fifteen minutes before admission, he fell from the fourth story of a building, striking his right side on a newel post, causing the following injuries.

On admission, the patient was in a semi-comatose condition; blanched; restless, with cold extremities, and cold perspiration; pulse, rapid (140), and gaseous; pupils unequal. There was a lacerated wound, three inches in length, under the inferior maxilla, on the right side. Multiple fractures of the upper right ribs: marked superficial emphysema, with slight, frothy expectoration of blood; urine negative.

Treatment.—Hot bottles; stimulants sparingly used until he aroused from his immediate shock; emplast. adhesive tightly around chest; silk sutures to wound of chin; Liq. morphiæ sulph. hypodermically, sufficient to control restlessness.

December 22d.—Rallied considerably; intellect better, but irritable; pupils still unequal, and is drowsy. No signs of intrapleural hemorrhage. A. M.: temperature, 100°; pulse, 128; resp., 40. P.M.: temperature, 101¼°; pulse, 120; resp. 44. Takes nourishment freely; ℥ iv. of brandy in twenty-four hours, and milk ad lib. Morphia as before.

December 23d.—Decidedly worse mentally and physically; eyelids tightly closed; photophobia; pupils unequal: tongue getting dirty and dry; is drowsy, and his breathing is becoming stertorous, but he can still be aroused. Brandy (℥ ss.) every two hours.

Physical examination.—Moist râles over both sides of the chest: and slight bronchial voice, and breathing over a limited area of the left chest, in the axillary region. *Treatment.*—Change of position; cupping over the chest and nape of the neck. A.M.: temperature, 104¼°; pulse, 140; resp., 50. P.M.: temperature, 105¼°; pulse, 130; resp. 54.

December 24th.—A.M.: Temperature, 102¼°; pulse, 128; resp. 48. P.M.: temperature, 104¾°; pulse, 138; resp. 54.

December 25th.—A.M.: Temperature, 103°; pulse, 128; respiration, 60: œdema of lungs is more or less persistent, and he became practically moribund; but could be roused, and could swallow with some little difficulty until a few hours before his death, which took place on December 25th, 1881, 4.15 P.M. A point of some interest was the fact that his intellectual condition until the last few hours did not correspond to the grave symptoms of cerebral compression; which fact could possibly be explained by the presence of profound primary shock and by an intra-pleural hemorrhage, which combined produced more or less cerebral anæmia, antagonistic to the congestion which would have otherwise naturally ensued.

Necropsy.—Eighteen hours after death, by Dr. John F. Duffield, house surgeon. Rigor mortis well marked. Body well nourished. Mark of a lacerated wound over the right side of the face, along the inferior maxilla. Contusion of the left side of the chest, just anterior to the axillary line. Numerous cup marks over both sides of the chest, anteriorly.

Thoracic cavity.—A small extravasatian of blood over the heart, at the junction of the fourth costal cartilage with the sternum of the right side. The pericardial sac contained two drachms of clear blood-tinged serum; otherwise normal. The heart weighed fourteen ounces; valves free and sufficient. Evidence of commencing fatty degeneration of the aortic valves and the root of the aorta. All the cavities of the heart contained fluid blood, excepting the right auricle, which was filled with soft coagulum.

The *left* lung was bound to the chest cavity by diffuse and old adhesions: weight, thirty-four ounces. Its inferior lobe was in the early part of the second stage of lobar pneumonia, and readily sank in water: the superior lobe was slightly congested and œdematous.

The *right* lung was also adherent to the chest-wall by extensive old adhesions. The pleural sac contained four ounces of bloody serum and coagulum; and there was a lacerated wound, three inches long involving equally the superior and middle lobes, at a point midway between the axillary and mammary lines. This lung also gave slight evidence of lobar pneumonia, congestion, and œdema. Weight, thirty ounces.

The third costal cartilage was broken at its attachment with the sternum. The six superior ribs of the right side were fractured about two inches external to their costal ends. The third, fourth, and sixth had caused a laceration of the costal pleura. One fragment of the fourth projected directly into the pleural cavity, and caused the laceration of the lung.

Abdominal cavity.—Spleen: weight six ounces; normal. The left kidney, weight, seven ounces, and appeared healthy with the exception of one small cyst upon its surface. The right kidney weighed seven ounces, and was normal.

The liver weighed seventy ounces, and also appeared normal.

Cranial cavity.—Considerable bloody serum exuded at the removal of calvarium; and when the dura mater was turned back, the meningeal vessels were seen to be congested. There was also a thin layer of coagulum covering the posterior two-thirds of the left hemisphere, most marked at the vertex and posteriorly. One vessel at the superior limit of the hemisphere, one and one-half inches external to the longitudinal sinus, seemed to be one source of hæmorrhage; and also another blood-vessel, one and one-half inches further back.

THE PRESIDENT, on behalf of a candidate, presented a specimen of

DIPHTHERITIC LARYNGITIS. TRACHEOTOMY. DEATH.

By DR. WM. I. SWIFT, *Candidate.*—The boy from whom this larynx and trachea were removed, 3½ years old, was attacked Saturday, Nov. 26th, 1881, with symptoms of coryza. On Nov. 27th, he began to cough, in a croupy way, and in the night he had an attack of dyspnœa, which was relieved by vomiting, produced with ipecac. On the 28th, he was apparently better, sitting up and playing about the room: his voice, however, was somewhat hoarse. In the evening, he began to cough again, and during the night, he had another attack of dyspnœa, followed by complete aphonia. His respiration was much embarrassed, both in inspiration and expiration.

There was no exudation in the throat, nor was anything resembling false membrane coughed up. The dyspnœa continued all day on the 29th, and, as he was becoming exhausted, at 8.30 P.M., tracheotomy was done, after anæsthetization with chloroform. The operation afforded immediate relief, and the little patient, who a few moments before was gasping and struggling for breath, at once fell into a calm sleep, breathing quietly and regularly.

This improvement continued, and on the morning of Dec. 1st, the tubes were temporarily removed, but the larynx having been found to be quite impervious to air, they were replaced.

The child did well till the afternoon of Dec. 2d, when he was suddenly seized with great dyspnœa, and was soon in an apparently dying condition. After several unsuccessful attempts to remove the obstacle to respiration, this was finally effected by means of a brush, fixed to a wire handle, thrust forcibly down the trachea through the opening made for the tubes: the patient then gave a violent cough, and a considerable piece of membrane was expelled, with immediate relief to all the symptoms. Two more attacks of a similar kind were relieved in the same way: but after each, the child was much exhausted; still during the interval he seemed to recover his strength to a consideable degree. At 3 A.M., Dec. 3d, he was left sleeping quietly; but at 6 o'clock he complained of pain in the abdomen, and vomiting with purging set in: his pulse became weak and irregular, and, in spite of energetic stimulation, he failed rapidly, and died at 9:30, of cardiac failure: respiration being performed to the end with comparative ease.

In connection with this case, it should be stated that the brother of the patient was at the time ill with diphtheria, the exudation covering the tonsils, and extending to the pharynx, and being limited to those locations.

The chief points of interest were: (1) The limitation of the disease to the air-passages: (2) The almost complete stenosis of the larynx within thirty-six hours: (3) The limited amount of exudation in the larynx, the closure of which was due mostly o swelling, and œdema, and spasm: and (4) The comparatively sudden development of collapse.

The case is one which goes a long way toward proving the identity of croup and diphtheria, for had it not been for the presence of an undoubted case of diphtheria in the house, this case would unquestionably have been called, by anybody, one of croupous laryngitis, or true membranous croup.

The exudation examined by Dr. W. H. Welsh was found to be composed of fibrillated fibrin, inclosing many pus and some epithelial cells, with much granular matter, a part of which was made up of micrococci and other forms of bacteria.

NOTE.—The discussion about the identity and non-identity of membranous croup and diphtheria commenced in this Society in 1845 and 1846: in which Drs. G. A. Sabine, Thos. M. Markoe, Willard Parker, John C. Peters, and William A. Roberts took the principal part. The latter read several long papers on the subject.

RETICULATED ROUND-CELL SARCOMA OF THE ORBIT, WITH SECONDARY GROWTHS INTERNALLY CONTAINING MELANOTIC DEPOSITS.

DR. WILLIAM H. PORTER presented a specimen from a gray mare, twelve years of age. About one year before death, there was a small tumor over the left eyeball, evidently growing from the wall of the orbit. During the first few months it grew very slowly. In May, 1881, an incision was made into the growth to ascertain whether it was solid or contained fluid; nothing but blood oozed from the opening, and the mass appeared to be firm. During the next four weeks, it gradually increased in size, and late in June it was again cut into and a small portion removed for microscropical examination, which showed that the tumor was sarcomatous, of the large round-cell variety; and not melanotic, as is so frequently met with in the eye and in various parts of the body of white and gray horses. An operation was recommended, with the statement that there was a prospect of either local or internal recurrence.

During the next two months, the animal continued in fair condition, worked every day, and the growth enlarged slowly. In the early part of October, she suffered from the disease known as "pink eye," and was laid up about ten days. By this time the tumor had attained considerable size, was growing rapidly, pushing the eyeball from its socket, and evidently giving the animal considerable pain. She was, however, again put to work, accomplishing the same with ordinary ease; still it was noticed that she was gradually failing, both in flesh and strength, probably from the pain and annoyance of the growth in the orbit, as well as from general disease.

October 23d, 1881.—The mare being unfit for duty, an operation was decided upon. The tumor, which was quite firmly attached to the orbital wall, completely filled the orbit, so that the whole contents of the orbital cavity were removed by Dr. E. Berry Ramsdell. She suffered severely from shock, but rallied completely at the end of a few hours. The edges of the wound were brought together by a few sutures, and cold dressings applied; it healed kindly, with scarcely any suppuration. The animal was so much improved that, two weeks after the operation, she was again at work, and at first seemed seemed to gain both in strength and flesh.

But two weeks after, it was noticed that her breathing was hurried and impeded; and this interference with respiration gradually increased until December 10th, 1881, when she was no longer able to work, and was placed in the hospital. Two days later, a careful physical examination revealed fluid in the left pleural cavity, and in a few days more, a small quantity was detected upon the opposite side. Four days before death, the left chest-cavity was aspirated, and one gallon of clear, serous fluid drawn off, after which marked and extensive consolidation of the left lung was noticed, and thought to be due to secondary deposits: as none of the rational signs of pneumonia were present. Some pulmonary consolidation was also found on the right side. The left pleural cavity rapidly refilled with fluid, and the animal died four days later, December 21st, 1881.

Necropsy, a few hours after death.—The operation-wound was perfectly healed, and there was no evidence of a return of the disease at that point.

Thoracic cavity.—The right pleural cavity contained about eight gallons of clear, serous fluid: the left equally as much. The diaphragm was a thickened mass of new growths; the right costal pleura was covered with round tumors, varying in size from a pea to that of a hen's egg. The right lung was also thickly studded with pinkish-white masses, varying much in size. Most of the lumps, especially the smaller ones, were of a soft consistency; but some of the larger ones seemed to have fibrous elements. New growths were also distributed liberally through the left lung, over the left costal pleura, and in the diaphragm, and really seemed more abundant than upon the right side. Some of the abdominal organs appeared to be involved, but, owing to incompleteness of the necropsy, nothing positive was determined upon that point.

Macroscopic examination of the tumors.—They were whitish in color, marbled with a pale-pink. In some of them dark, almost black spots were met with, as if they were deeply pigmented. The smaller masses were very soft when isolated, and easily broke down under the slightest pressure. When only a single mass existed at a given point, it seemed to be encapsulated by a thin layer of distinct tissue.

Microscopic examination.—Scrapings of the juice from the cut surfaces showed only large, round, and connective-tissue cells with blood-corpuscles. Sections from the tumors presented at points a distinct reticulated structure, closely packed with these large round cells; at other places, only large round cells, imbedded in a homogeneous matrix, could be seen. The growths resembled somewhat medullary carcinoma; they, however, were very vascular, and contained numerous extravasations of blood. The black points, recognized with the naked eye, appeared under the microscope like the melanotic deposits in the melanotic sarcoma found in the human body: but they were without doubt blood-pigment, and not the masses of carbon, commonly met with in lung tissue. In sections made from the tumors in the lung-substance, numerous yellow elastic fibres were seen running in various directions; also true pulmonary tissue was present in many instances. This would lead one to suppose that the new material had been deposited in and around the vesicular tissue, and not at its expense. In some of the larger masses, considerable fibrillated connective tissue had been developed, forming numerous bands, running in various directions. The microscopical appearance of the primary tumor and the secondary deposits was almost identical.

The specimen was interesting as an illustration of a third form of sarcoma in the lower animals, also as a specimen in comparative pathology. In a surgical point of view, the case showed how much relief can be given to animals, as well as man, by timely operation. The improvement of the mare after the operation should encourage surgeons to operate early, and thus relieve suffering, and perhaps prolong life.

Dr. J. C. Peters remarked that one form of "pink-eye" in horses was analogous to scarlatina in man; at least the two diseases had several symptoms in common, the most prominent of which were enlargement of the glands of the neck, swelling of the legs, and disturbances of the kidneys. He thought it to be undoubtedly contagious among horses, but had never heard of its being transmitted from animals to man. The French had regarded it as a form of scarlet fever occurring in horses.

INCARCERATED FEMORAL EPIPLOCELE—REMOVAL OF THE MASS—RECOVERY.

Dr. Wyeth presented a specimen with the following history: The patient was a German by birth, forty-two years of age, and a laborer. His family history was unimportant, except that his father had a hernia. Twenty years ago, he had gonorrhœa and an accompanying swelling in the right groin, followed by occasional "cramps" at this point. This tumor soon diminished to a small lump, half as large as an egg, but at varying intervals, up to 1881, had increased and diminished, giving him always more or less inconvenience. Two weeks before admission, while doing heavy work as a railroad hand, the tumor suddenly increased in size, and gave him great pain. During the following night he vomited profusely, and the next day, he says, the tumor was partially reduced by a doctor. On admission, the patient was in good general condition, but had a hard, non-elastic swelling, as large as a hen's egg, in right "Scarpa's space," which was irreducible. Diagnosis, incarcerated femoral epiplocele. An operation was advised, since his condition would not admit of his wearing a truss, and it was impossible for him to work without one. June 12th, I cut down on the mass, followed it into the outer opening of the femoral canal, which it completely plugged up; then removed the sac, and, after having tied the neck of the epiplocele securely, cut it away. The patient recovered, and was discharged as cured on the 24th of July, forty-two days after the operation.

At the time of this report, over six months after the operation, the patient is able to work as a laboror by wearing a truss. But the removal of the truss allows a slight hernia, which is readily reducible, to protrude at the femoral canal.

Dr. Wyeth also presented a specimen of

CYSTO-ADENOMA OF THE THYROID

removed by operation. (See *Record.*)

Dr. Beverley Robinson presented three specimens, with histories, furnished by Dr. Wm. C. Campbell, house physician at St. Luke's Hospital.

The first was a specimen of

ATROPHY OF THE LUNG,

from A. B——, thirty-five years of age, a German, piano-tuner, who gave a family record of pulmonary phthisis, and a personal history of having suffered from that disease during the last three years.

At the *autopsy* both lungs were firmly bound to the chest-walls by old adhesions. The *right* was markedly emphysematous; and had hypostatic congestion in the lower, and fibrous phthisis in the upper half: while the upper portion of the middle lobe was tuberculous. This whole lung was enlarged, so as to extend over upon the left side considerably, and its weight was two pounds and fourteen ounces: there were also evidences of chronic bronchitis. The *left* lung was compressed upward and backward against the vertebral column, and was about the size of a closed hand: the first bifurcation of its bronchus extended to the limits of the lung, and the pulmonary tissue about it was in a state of cheesy degeneration. The air-cells were completely obliterated. Weight, twelve and one-half ounces.

The *liver* was enlarged and fatty. The *kidneys* were large and white. The pericardium contained half an ounce of clear serum, and there were a few longitudinal adhesions upon the left side of the heart: the ventricles were distended with currantjelly clots, but the valves were normal. The interest in the specimen centred in the atrophied condition of the left lung, probably due to the contraction of a hypertrophied pleural membrane, the result of a previous pleurisy.

THE PRESIDENT remarked, with reference to the question of complete destruction of lung-tissue: that it was a very common saying that patients had only one lung left, but he had never, except in one instance, seen so complete absence of the aerating structure as was manifest in the specimen presented. In the specimen referred to, an account of which had already been published by Dr. Alonzo Clark (see *Medical Record*, vol. x., p. 1), the nodule was still smaller than that in the specimen presented by Dr. Robinson, and death occurred as a result of hemorrhage from the other lung. He believed it to be rare to find such complete obliteration of the lung as seemed to be present in the specimen Dr. Robinson had exhibited.

DR. WM. H. PORTER said that in the specimen which he presented at the last stated meeting of the Society, there was no lung-tissue remaining, it was simply a fibrous mass (carnification of the lung the result of pleurisy with effusion and empyema). The left lung was affected; the right lung, in his case, did not project beyond the median line.

The second specimen was a heart from C. S——, thirty-four years of age, married, who was admitted Dec. 3d, 1881. It illustrated

EXTENSIVE CALCAREOUS DEGENERATION OF THE AORTIC AND MITRAL VALVES.

The patient gave the history of rheumatism recurring at various times since he was ten years old. Twelve years ago, he began to have attacks of palpitation of short duration, and at long intervals; but did not suffer much until last October, when he had severe paroxysms of dyspnœa and coughing: and swelling of the ankles, which had been slight during the summer, became very marked. On admission, it was found that the area of pericardial dulness was increased; the apex was beating in the left sixth intercostal space; and there was undoubted evidence of aortic and mitral regurgitation. Subcrepitant râles were heard posteriorly at the bases of both lungs. The urine contained hyaline and epithelial casts, thirty per cent of albumen, and had an acid reaction, with a specific gravity of 1.020. The patient died comatose, Dec. 19th, the heart continuing to beat for thirty seconds after breathing had ceased.

The third was a specimen of marked

MITRAL STENOSIS.

The heart was from J. D——, thirty-eight years of age, a widow, teacher, who was admitted Nov. 19th, 1881. For the the last seven years she had been a confirmed invalid, suffering from dyspnœa, which gradually increased in severity. There was no œdema. She gradually lost flesh and strength, but was able to attend to her duties until within a month of her admission to the hospital, when she was prostrated with symptoms of pelvic abscess. When admitted, she was extremely anæmic, weak, vomited occasionally, complained of great distress in the region of the stomach after eating, her bowels were constipated, and she suffered from insomnia, but there was no œdema, nor cerebral symptoms. The urine had a specific gravity of 1.030; reaction acid, microscopical examination negative, except an abundance of urates. A presystolic murmur was heard with its greatest intensity about the middle of the space between the left nipple and the centre of the sternum. There was no purring thrill. There was marked dyspnœa, and the pulse was irregular, although strong. The diagnosis of mitral stenosis and regurgitation was made. The dyspnœa increased, the patient became delirious, sank into a comatose condition, and died November 30th at 3 A.M.

The *autopsy* was made December 1st, 1881, by Dr. E. C. Wendt. The upper half of the body was somewhat emaciated; the lower half was well nourished. Slight œdema of the lower extremities. Rigor mortis absent. Twenty ounces of flocculent fluid in the abdominal cavity: twenty-four ounces in the right, four ounces in the left pleural cavity, and four ounces in the pericardium. [There had been no evidence of fluid in either of these cavities at the last examination, twelve hours before death.]

The right lung contained several recent hemorrhagic infarctions in the lower part of the upper lobe; and there was a single small one in the posterior part of the left lung.

The *heart* weighed thirteen ounces. Its right cavities were dilated. There was marked mitral stenosis, the mitral orifice not admitting a single finger: the curtains of the valve were contracted and cicatricial. There was no hypertrophy of the left ventricle, and only very slight dilatation: the aortic valves were normal.

The *liver* presented the nutmeg appearance, and was enlarged. The *kidneys* were congested. The *stomach* presented evidence of gastritis. The *spleen* was small. The *uterus* was bound down by adhesions, and an abscess was found in the left ovary.

Dr. Robinson added that he had often heard of and read of the existence of mitral stenosis, and of its being diagnosticated before death; but he had not been able to find a case in which such a diagnosis had been made and afterward confirmed by autopsy, until he obtained the specimen now presented.

REPORT ON THE ANATOMY AND HISTOLOGY OF CYSTS OF THE PANCREAS.

By HENRY J. GARRIGUES, A.M., M.D.—At the meeting of this Society which was held December 14th, 1881, Dr. Bozeman presented a cyst he had removed from the pancreas of a living woman, gave the clinical history of the case, and described the operation.

Pancreas-cysts are so rare that only quite few are on record, and nowhere have I been able to find a full anatomical description of one; nor has there ever been made a microscopical examination of the elements of the cyst and the fluid, so far as I know. It seems, therefore, desirable that this opportunity be seized to give as full particulars about this rare case as possible, and no place seems fitter for the record than the Transactions of the Pathological Society.

The cyst with fluid weighed twenty and one-half pounds; the fluid measured two and one-half gallons. It lay close up to the anterior abdominal wall, and was excised from the tail of the pancreas. It was a monocyst in the surgical sense of the word; but in several places were seen secondary cysts as large as a small hen's egg. The outer surface was of a light bluish-gray color; the inside was dark-red, and in some places greenish-brown. Large partitions, with great holes, were seen in the interior, formed of remnants of walls separating different cysts.

On the inner surface was found an opening as large as a dollar, leading into a canal six inches long, which rapidly diminished in calibre; the first half admitted a finger, the second half a probe, and ended blind in the wall. I have once met with a similar canal in an ovarian cyst, which I demonstrated before this Society a year ago.

The wall of the main cyst was generally thin, measuring only two or three millimetres in thickness. The outer surface was smooth and hard, and it was only with difficulty that some flat peritoneal endothelial cells could be scraped off. The inner surface, on the contrary, was velvety, and, by scraping, whole pieces of epithelium were obtained, the single cells of which were very long, narrow, and columnar. I measured several, and found them thirty-two micromillimetres long and eight micromillimetres wide: their upper ends were rounded; the lower formed a thin root, near which was seen a nucleus; in the upper part were seen some fine fat-granules.

Scrapings from the beginning of the above-mentioned canal showed only pigmented Bennett's corpuscles, *i. e.*, changed epithelial cells (see Garrigues: "Diagnosis of Ovarian Cysts by Means of the Contents," in *American Journal of Obstetrics*, January, 1882, p. 18), as we find them so commonly in ovarian cysts; some red blood-corpuscles, and fine granules.

A snip removed from the inner surface of a secondary cyst showed a beautiful regular polygonal epithelium, exactly like that of an ovarian cyst.

I hardened a piece of the cyst with a secondary cyst attached, in a one-fourth-per-cent solution of chromic acid, which, later, was replaced by alcohol, and obtained good cuts, of which one lies under the microscope before us.

The wall is composed of fibrous connective tissue, which, in the outermost and innermost part, contains many round cells, while the intermediate part contains very few of them; but especially near the epithelium, the tissue is choke full of them.

The inner surface shows the formation of secondary cysts, exactly as we find in ovarian cysts. For the convenience of the members, I have made rough diagrams of different parts of the same cut, and by them it will be seen how at first there are only broad and shallow depressions, separated by low and broad hills; next the bays become long, narrow creeks, separated by more pointed promontories; finally the outer opening is blocked up by epithelial cells, and the connective-tissue prolongations grow together. Thus, a closed pouch lined with epithelium and surrounded with connective tissue is formed, and the same process is repeated over it.

The single cells of which the epithelium is composed are goblet-shaped, with a nucleus at the lower end.

The *fluid* found in the main cyst was yellowish-gray, viscid, had a specific gravity of 1020, and acid reaction. No spontaneous coagulation took place in it, but by boiling it precipitated much solid matter. The microscope revealed—1st, innumerable bodies, which looked as if they were composed of a few short threads, and which, by examining a secondary cyst, were found to be the remnants of the bodies of the epithelial cells; 2d, innumerable very small nuclei, with dark granules; 3d, pigmented large Bennett's corpuscles; 4th, epithelial flakes in a semi-dissolved condition, including similar bodies.

From a secondary cyst was first taken fluid which was like raw albumen, but from the bottom came a thick brownish-gray fluid, which was full of columnar epithelial cells and pigmented Bennett's corpuscles, exactly as seen in many secondary sacs of ovarian cysts.

The fluid from the main cyst looked macroscopically entirely like the fluid from the most common kind of myxoid ovarian cysts; but under the microscope it differed from it by the presence of the thready bodies and the uniform size of the nuclei. Besides that, it differed from the ovarian fluid by its acid reaction. This reaction is very puzzling, for pancreas juice is alkaline. I can only explain it by an endosmosis from the stomach: for, how near the relations were between the latter organ and the tumor appears from the clinical fact that, on the fifteenth day after the operation the patient vomited six to eight ounces of pus.

I have searched some of the chief works on morbid anatomy, in order to find parallel cases. Rokitansky (Sydenham Society, London, 1849, vol. ii., p. 179) mentions very briefly serous cysts of the pancreas, which, he says, must be distinguished from dilatations of the ducts and their terminations, which put on a similar appearance: it is evident that he did not know of any large cyst in this locality. Cruveilhier does not mention pancreas-cysts at all in his atlas. Virchow, in his voluminous special work on tumors ("Pathologie des Tumeurs, traduit par Aronsohn," Paris, 1867, vol. i., p. 273, fig. 48), represents a case of "very considerable" dilatation, partly cystiform, of the pancreatic duct, due to obliteration of the orifice by a tumor in the duodenum; but as no dimensions are given, it is more than doubtful if a really large cystic tumor was formed. Lebert ("Traité d'Anatomie Pathologique," Paris, 1857, vol. i., p. 238, etc.) is the only author in whom I have found detailed descriptions of pancreatic cysts. He mentions (p. 279) a specimen found in St. Bartholomew's Museum in London, in which there was a cyst measuring more than one inch in diameter, and situated on the end of the Virsungian duct, which was obliterated by calcareous matter. Further, he mentions the case of Gould, of Boston, in which at an autopsy the whole pancreas was found changed to a cyst containing from three hundred and fifty to four hundred grammes of a sero-sanguinolent fluid. Lebert speaks further with doubt of Störck's case, who found the pancreas weighing thirteen pounds, and changed into a sac filled with blood. Finally, he mentions a specimen found in the museum of Strasbourg, in which a cyst as large as the head of a four years' child occupied the body and the tail of the pancreas, while the head of the gland seemed to have remained healthy: it had fibrous, whity, very resistant walls, three millimetres thick. This latter specimen seems to have had much in common with the one under discussion; but since Dr. Bozeman's patient was dismissed cured, it is impossible to say anything about the condition of the non-cystic part of the pancreas.

This is the first time a description of the histological structure of a pancreas cyst is given; we have no others to compare it with; no standard to measure it by. We find in our case a striking likeness of the secondary cyst formation with that of ovarian cysts, and I do not see any difficulty in explaining it. The Virsungian duct being lined with columnar epithelium, when an obstruction takes place somewhere in its course, a retention cyst is formed; and the proliferation which has just been described then begins on the inside.

But, if in the course of time, when a larger number of well-observed cases are at hand, it should be found that this kind of cyst-formation does not belong to the pancreas, our specimen may be explained in another way. It is possible that it is not formed of elements belonging to the pancreas itself. This whole enormous cyst which now had grown together with the pancreas, may originally have formed part of the *germinal epithelium* described by Waldeyer ("Eierstock und Ei," p. 117, Leipzig, 1870, etc.), which is the first beginning of the Wolffian body and Müller's duct; in other words, of the whole uro-genital apparatus. A few of the columnar cells of which it is composed may not have been used in building up the organs we have just mentioned: and may have been surrounded by connective tissue and formed a small cyst, which in the course of time attained such large dimensions.

The Society then went into executive session.

INDEX.

†*Deceased.

Abscess of the brain, 33–40.
  orbital, 34.
  of ovary, 376.
Abbe, Dr. Robt., epithelioma of penis, 19, 22,
Abdomen, gun-shot wounds of, 248.
Abdominal aorta, aneurism of, bursting behind the peritonæum, 83.
  section, 248–253.
Abortive ovum, 282.
Acupressure, safety pins, 18.
Adenoma of breast, 224.
Agnew, Dr. Cornelius R., fibroids of uterus, 54.
Amyloid degeneration of Malpighian bodies, 57.
Aneurisms, 7, 50, 71, 83, 103, 180, 196, 208, 227, 293, 358.
  of the aorta, 7, 84, 227, 301.
  of the abdominal aorta, 83.
  galvano-puncture of, 196–204.
  of the heart, 103, 208.
  of the innominata, 293–301.
  of the pulmonary artery, 358.
  of the pulmonary, record of cases of, 361.
  subclavian, 196–204.
  of the thoracic aorta, 50, 52.
  of both vertebral arteries, 180.
Aneurism of the arch of the aorta, 71–73, 227.
Angio-lithic tumors tumors of the choroid, 53.
Aorta, aneurisms of, 7, 84, 227, 301.
  aneurism of the arch of, 227.
  aneurism of thoracic, 84.
  ascending aneurism of, 301.
Arsenic, poisoning with, 115.
Arteries, cerebral, atheroma of, 282.
Artery, femoral, wound of, 270.
Atheroma, 51.
  of cerebral arteries, 282.
Atrophy of the lung, 373.

Bacteria, 30, 31, 32.
Bangs, Dr. Richard T., composite ovarian tumor, 125–130.
  dilatation of the stomach, 97–99.
Basilar artery, occlusion of, 283.
Birdsall, Dr. William R., filaria loa and pulex penetrans, 108 to 111.
Bladder, carcinoma of, 345.
Blood in leucocythæmia, 269.
Bowels, laceration of, 26.
  obstruction of, 236.
Bozeman, Dr. Nathan, cyst of pancreas, 338.
Brain, abscess of, 33–40.
  chronic disease of, 325, 329.
  disease, 33, 40, 211, 325.
  suppuration of ventricles of, 40,
Breast, adenoma of, 224.
  cystic sarcoma of, 209.
  fibro-sarcoma of, 91–93.
  sarcoma of, 223.
  scirrhus of, 222.
Briddon, Dr. Charles K., abdominal section, 252.
  cancer of the rectum and prostate gland, 108, 189.
  cancer of stomach, 262.
  carcinoma of the dura mater 38.

- Briddon, Dr. Charles K., caries of the elbow-joint, 67.
  - epithelioma, 22, 157, 179.
  - extirpation of the rectum, 64.
  - necrosis of clavicle, 276.
  - obstruction of the bowels, 236.
  - sarcoma of thigh, 167.
  - sarcoma of the upper jaw, 143 to 146
  - Dr. Thebaud's case, 6.
  - tonsillar calculus, 234.
  - uræmia, 265.
  - vesical calculi, 169.
  - wounds of chest, 256.
- Bridge of new tissue in vagina, 305.
- Bright's disease, 10.
- Bronchitis, capillary, 7.
- Bronchial tube cast, 79.
- † Brown, Dr. James L., latent pericarditis, 8.
- Bull, Dr. Charles S., glio sarcoma of retina and choroid, 167.
  - intraocular and orbital sarcoma, 136–137.
- Burrall, Dr. Frederick A., cerebro-spinal meningitis, 148 to 152.

- Calculi, biliary, 169.
  - renal, 169.
  - tonsillar, 234.
  - vesical, 169.
- Camman, Dr. Arnold M., aneurism of the arch of the aorta, 71–73.
  - suppuration of the ventricles of the brain, 39.
- Cancer of the bladder, 345.
  - of the dura mater, 80, 115.
  - from irritation, 288.
  - of the kidney, 193.
  - of the liver, 96, 209.
  - of the liver, primary, 209.
  - of the lungs, 80, 115.
  - of the pancreas, 68.
  - of the rectum, 64.
  - of the rectum and prostate, 189.
  - of the stomach, 261.
  - of the stomach and liver, 121–125.
  - traumatic origin of, 136, 153–154.
- Capillary bronchitis, 7.
- Carbuncle and columnæ adiposæ, 178.
- Carcinoma of the bladder, 345.
- Caries, dry, 348.
  - of the elbow-joint, 67.
  - of the orbit, 35.
  - of the tarsus, 257.
  - of the temporal bone, 258.
- Carmalt, Dr. William H., cancer of testicle, 48.
- Carnification of the lungs, 341.
  - of the lungs, false, 343.
- Carpenter, Dr. Wesley M., aneurism of both vertebral arteries, 180.
  - cerebro-spinal meningitis, 245.
  - fatty degeneration of the heart 283.
  - rupture of jejunum, 277.
  - scarlatinal nephritis, 76.
  - suppurative pericystitis, 181.
  - trichinosis, 133.
- Cartilages, floating, in the knee-joint, 349.
- Cavities, probing wounds of, 253.
- Cerebellum, tubercle of, 313–314.
  - tumors of, 303-313.
- Cerebral arteries, atheroma of, 282.
  - localization, 36.
  - symptoms, obscure, 113.
- Cerebro-spinal meningitis, 102, 116, 148–152, 239, 246.
  - with endocarditis and pericarditis, 323.
- Cheyne-Stokes respiration, 35.
- Children, lipomata in, 14.
  - phthisis in, 219.
- Chorea, 9.
- Choroid, angio-lithic tumors of, 53.
- Chronic alcoholism, 52.
- Cirrhosis of the liver, 87.
- Chambers, Dr. T. R., injury to fœtus, 117.
  - subclavian aneurism, 196–204.
- Clark, Dr. Alonzo, on atrophy of the lung, 374.
  - calcareous lipoma, 15.
  - cystic sarcoma of testicle, 48.
  - cystic tumor of the cerebellum, 311.
  - false teeth in œsophagus, 3.
  - fibro-sarcoma of uterus, 54.
  - Hodgkin's disease, 61.
  - hypertrophy of the heart, 45.
  - lipoma of intestines, 17.

CLARK, DR. ALONZO, malformation of the heart, 49.
  nodules on the peritoneum, 17.
  opium treatment of peritonitis, 25.
  pericarditis, 8.
  pericarditis in a child, 8.
  latent pericarditis, 7.
  secondary pericarditis, 7.
  tubercle of cerebellum, 313.
  ulcerative endocarditis, 31.
Clavicle, necrosis of, 274–277.
COCK, DR. THOMAS, malformation of the heart, 49.
Colon, perforation of, 25, 112.
Columnæ adiposæ and carbuncle, 178.
†CONANT, DR. D. S., lipoma, 14.
Concealed uterine hemorrhage, 65, 66
†COX, DR. HENRY G., pericarditis in an infant, 8.
†CROSBY, DR. ALPHEUS B., cancer of penis, 22.
Croupous pneumonia, 364.
Cryptorchis, 177.
CULPEPPER, DR. V. G., innominate aneurism, 297.
Cystic degeneration of kidneys, 273.
  tumors of cerebellum, 303-313.
Cyst of pancreas, 338.
Cystitis, 205, 273.

DALTON, DR. JOHN C., malformation of the heart, 49.
DAY, DR. WALTER DE F., congenital absence of one kidney, 140–143.
DELAVAN, DR. B. BRYSON, nasal polypus, 184.
Dermoid tumor of pharynx, 161.
DETMOLD, DR. WILLIAM C., fibromyoids of uterus, 54.
  lipoma, 14.
Diffuse nephritis, 321–322.
Diphtheria, 33, 356, 367, 369.
  nasal, 356.
Diphtheritic laryngitis, 367.
  endocarditis, 33.
Diverticulum of the small intestines, 41.
  typhoid lesions of, 42.
Dog, implantation of nerve of, 195.
Ductus communis, occlusion of, 68.
DUFFIELD, DR. JOHN F., on aneurisms of the pulmonary artery, 358.

ELBOW-JOINT, caries of, 67.
ELLIOTT, DR. AUGUSTUS G., stab wounds of the peritoneum, 27.
† ELLIOTT, DR. GEORGE T., lipoma of intestine, 16.
  secondary pericarditis, 6.
  sarcoma of the heart, 7.
ELSBERG, DR. LOUIS, fibrinous cast of the tongue, 67.
  fibro-myxo-sarcoma of the larynx, 354.
EMMET, DR. THOMAS ADDIS, fibromyoids of uterus, 54.
  ovarian cysts, 164.
Encephaloid of testicle, 47.
Endocarditis, ulcerative, 29, 33, 207.
Endo- and pericarditis, with cerebro-spinal meningitis, 323.
Enlargement of gall-bladder, 68.
ENOS, DR., cystic disease of cerebellum, 311.
Epiplocele, femoral, 372.
Epitheliomata, 18–23, 155–158.
Epithelioma of the lip, 155–158, 179, 285.
  of maxilla, 179.
  of neck, 285.
Erysipelas followed by peritonitis, 25.

FALSE mesentery, 215.
Fatty degeneration of the heart, 283.
Femoral artery, wound of, 270.
Fever, continued: from scanty water supply, 331.
Fibrinous cast of the tongue, 67.
Fibrous phthisis, 5, 86.
Fibro-chondroma of the tuber ischii, 108.
  myoid tumors of the uterus, 108.
  sarcoma of the breast, 91-93.
Filaria loa, 108–110.
FINNELL, DR. THOMAS C., abscess of cerebellum, 317.
  apoplexy of cerebellum, 318.
  calcareous lipoma, 15.
  concealed uterine hæmorrhage, 66.

Finnell, Dr. Thomas C., congestion of cerebellum, 317.
  hypertrophy of the heart, 44.
  secondary peritonitis, 27.
  stab wound of ileum, 27.
  Dr. Thebaud's case, 5.
Flint, Dr. Austin, hypertrophy of the heart, 43.
Fœtus, injury to, 117.
Foreign body in the nose, 161.
Fractures, multiple, 70, 118, 259, 364.
  of ribs, 364.
  of the arms and legs, 118.
  of skull, 259.
Frankel, Dr. Edward I., lipoma in a child, 14.
Frontal sinus, osteoma of, 48.

Gall-Bladder enlarged, 68.
  rupture of, 41.
Garrigues, Dr. Henry J., abortive ovum, 232.
  on the anatomy and histology of pancreas-cysts, 376.
  cerebro-spinal meningitis, 245.
  placental site, 230.
Gerster, Dr. Arpad G.; epithelioma, 157.
  epithelial ulcers, 286.
  floating cartilages in the knee-joint, 349.
  necrosis of clavicle, 275.
  traumatic origin of cancer, 153–154.
Gibney, Dr. Virgil P., congenital dislocation of the testicle, 209.
Glio-sarcoma of cerebellum, 305.
Gould, Dr. Frederick S., composite tumor of the testicle, 46–47.
Gunpowder, removal of, from skin, 329.
Gieson, Dr. R. E. Van, bronchial tube cast, 79.
  cerebro-spinal meningitis, 245.
  chronic disease of the brain, with congestion only of the pia mater, 325, 329.
  concealed uterine hemorrhage, 65.
  osteo-sarcoma of the lungs and liver, 120.
  sudden death, 279.
  tonsillar calculus, 285.

Hæmorrhage, intermingeal, 367.
  in the pericardium, 6.
  subperitoneal, 249.
Hairy lipoma, 11.
Hair on mucous membranes, 13.
Heineman, Dr. Henry N., on bacteria, 33.
  caries of temporal bone, 258.
  cerebro-spinal meningitis, 152.
  cerebro-spinal meningitis, with endocarditis and pericarditis, 323.
  diverticulum of small intestines, 41.
  hypertrophy of the ileum, 238.
  innominate aneurism, 295.
  rupture of the kidney, 40.
  rupture of the intestines, 246.
  shaven beard appearance of Peyer's patches, 258.
  tubercular pericarditis, 210.
  uræmia, 266.
Heat-stroke, 279–284.
Heart, aneurism of, 103, 208.
  clot, ante-mortem, 330.
  clot, note on, 333.
  disease, chronic, 97–99.
  disease, valvular, 6, 51, 93, 184, 208, 374.
  fibroid degeneration of, 103.
  hypertrophy of, without valvular lesion, 43.
  malformed, 48-49.
  sarcoma of, 7, 343.
  transposition of, 48.
  tricuspid regurgitation, 108.
Histology of pancreas-cysts, 376.
Hodgkin's disease, 55-58, 61.
Howe, Dr. Joseph W., abdominal section, 254, 256.
  abscess of the brain, 38.
  cancer of the rectum, 64.
  lumbo-colotomy, 64.
  epithelioma of penis, 18.
  exsection of nerves, 195.
  lipoma, 11.
  multiple fractures, 70.
  sarcoma of thigh, 166.
Howe, Dr. Robert T., purpura hæmorrhagica, 384.
Hull, Dr. Joseph I., cancer of testicle, 48.
  hypertrophy of the heart, 43, 44, 45, 51, 188.

HUTCHISON, DR. JOSEPH C., encephaloid of testicle, 47.
strangulated omentum, 27.

ILEUM, enormous hypertrophy of, 236.
stab wound of, 27.
strangulation of, 215.
Iliac vein, occlusion of, 60.
Innominata, aneurism of, 293-301.
Intermeningeal hæmorrhage, 367.
Intestines, lipoma of, 16, 17.
rupture of, 246.
†ISAACS, DR. CHARLES E., lipoma, 16.

JACOBI, DR. ABRAHAM, cancer of the dura mater and lungs, 80.
dislocation of the testicle, 209.
fibro-sarcoma of the breast, 91-93.
œdema of the larynx, 95.
phthisis in young children, 219 221.
cysto-sarcoma of the breast, 209.
JACOBI, DR. M. PUTNAM, chorea, 9.
disease of cerebral arteries, 284.
necrosis of clavicle, 276.
pericarditis in a child, 9.
scarlatinal nephritis, 73-79.
weak heart, 284.
JANEWAY, DR. EDWARD G., epithelioma, 22.
rupture of the gall-bladder, 41.
Jejunum, wound of, 26.
rupture of, 277.
JUDSON, DR. A. B., tubal pregnancy, 190.

KIDNEY, cancer of, 193.
congenital absence of one, 138-143.
cysts in, 273, 323.
in leucocythemia, 268
obliteration of one, 264.
rupture of, 40.
primary sarcoma of, 343.
Knee-joint, floating cartilages in, 349.
KNAPP, DR HERMAN, caries of orbit, 35, 37.
KNAPP, DR. HERMAN, osteoma of the frontal sinus, 43.
†KRACOWIZER, DR. ERNST, tapping the pericardium, 3.
laceration of the pericardium, 6.

LANGE, DR. FREDERICK, dislocation of testicle, 209.
neuroma, 195.
Larynx, fibro-myxo-sarcoma of, 354
œdema of, 94-96.
Laryngitis, diphtheritic, 367.
Latent pericarditis, 7.
peritonitis, 25.
LEAMING, DR. JAMES R., on Dr. Thebaud's case, 5.
LEE, DR. CHARLES C., pericarditis, 10.
Leg, sarcoma of, 81, 82.
LENTE, DR. FREDERICK D., cystic chondro-sarcoma of the testicle, 119.
thrombus of the pulmonary artery, 332.
Leucocythemia, 266-269
LIDELL, DR. JOHN A, fœtal pericarditis, 8.
Lip, epithelioma of, 155-158.
Lipoma, 11, 14, 15.
Liver, cancer of, 90.
cavernous metamorphosis of, 69.
cirrhosis of, 87.
enlarged, 52.
Hodgkin's disease of, 56-61.
in leucocythemia, 268.
anomalous, 224
primary cancer of, 209.
LOOMIS, DR ALFRED L., abscess of the brain, 38.
on diverticulum of the intestines. 42
Hodgkin's disease, 62.
on pericarditis, without exocardial murmurs. 10.
secondary pericarditis, 8
tumor of the cerebellum, 315.
Lung, atrophy of, 373.
cancer of, 115.
carnification of, 341.
false carnification of, 343.
rupture of, 229.

MALFORMATION of the heart, 48, 49.
Malpighian bodies, amyloid degeneration of, 57.
MARKOE, DR. THOMAS M., calcified fibroids of uterus, 54.
  cystic tumor of cerebellum, 303.
  sarcoma of testicle, 48.
  stab wounds of the abdomen, 28.
  wound of jejunum, 26.
†MASON, DR. ERSKINE, epithelioma, 22.
Melanotic deposits, 369.
Meningeal hæmorrhage, 52.
Meningitis, syphilitic, 204.
Mesentery, false, 215–219.
Microscopical examination of sarcoma of the larynx, 355–371.
Mitral stenosis, 375.
Mucous membranes, hair on, 13.
Multiple fractures, 70, 118.
MUELLER, DR. RICHARD W., multiple fractures, 118.

NASAL polypus, 184.
Neck, epithelioma of, 285.
  myxo-sarcoma of, 318.
  tubercular glands of, 320.
Nephritis, 43, 45, 56, 73, 79, 86, 93, 95, 99, 102, 108, 142, 264, 266, 321.
Nephro-lithiasis, 264.
Nerves, exsection of, 195.
  implantation of dog's, 195.
Neuroma, 195.
NEWMAN, DR. ROBERT, hypertrophy of the heart, 44.
  on floating cartilages, 353.
  removal of great toe nail, 353.
Note on abscess of the brain, 38.
  on aneurisms of the cerebral arteries, 189.
  on aneurism of the heart, 209.
  on cancer of the liver, 209.
  on cancer of the stomach, 125.
  on composite tumors of the testicle, 47.
  on cerebro-spinal meningitis, 103, 152, 246, 325.
  on diseases of the pancreas, 69.
  on epithelioma of the penis, 23.
  on fibro-myoids of the uterus, 54.
Note on fractures of the kidney, 41.
  on heart clot, 332.
  on Hodgkin's disease, 61.
  on hypertrophy of the heart, 45.
  on malformations of the heart, 49.
  on lipomata, 17.
  on osteomata, 43.
  on pericarditis, 10.
  on peritonitis, 29.
  on pulmonary cavities, 43.
  on rupture of the intestines, 247.
  on suppuration of the cerebral ventricles, 40.
  on tonsillar calculi, 235.
  on tubal pregnancies, 192.
  on tubercles of the cerebellum, 314.
  on tumors of the cerebellum, 312, 314, 316.
  on ulcerative endocarditis, 33.

OCCLUSION of the ductus communis, 68, 90.
OFFENBACH, DR. R., anomalous liver, 224.
Omentum, iron bullet in, 26.
  strangulated, 28.
Orbit, caries of, 35.
  round-celled sarcoma of, 369.
Orbital abscess, 34.
OSLER, DR. WILLIAM, ulcerative endocarditis, 29–33.
Osteo-myelitis, 71.
Osteoma of the frontal sinus, 43.
OTIS, DR. FESSENDEN N., prehistoric syphilis, 347.
Ovarian cyst, double, 189.
  rupture of, 163, 164.
  tumor, composite, 125–130, 163.
Ovary, abscess of, 376.
Ovum, abortive, 233.

PACHYMENINGITIS chronica, 321.
  hæmorrhagica, 168.
Pancreas, cancer of, 68, 90.
  cysts, anatomy and histology of, 338, 376.
PARKER, DR. WILLARD, encephaloid of testicle, 47.
  epithelioma of penis, 22.
  fibro-myoid of uterus, 54.
  malformation of the heart, 49.

Partridge, Dr. Edward L., aneurism of the innominate artery, 293-301.
Peabody, Dr. George L., acute pericarditis, 138.
  aneurism of the abdominal aorta, 83-84.
  aneurism of the thoracic aorta, 84.
  aneurism of the heart, 103, 208.
  cavity of lung, communicating with the pulmonary artery, 42.
  cerebro-spinal meningitis, 102.
  chronic diffuse nephritis, 43.
  fibroid degeneration of the heart, 103.
  hypertrophy of the heart, 43, 187.
  congenital absence of one kidney, 138-140.
  on micrococci, 32.
  pachymeningitis chronica, 321, 323.
  pachymeningitis hæmorrhagica, 168.
  primary cancer of the liver, 209.
  sarcoma of the leg, 81-82.
  ulcerative endocarditis, 207.
  Wickersheimer's fluid, 104, 168.
Penis, cancer of, 12.
  epithelioma of, 18-22.
Perforation of the colon, 112.
  of the umbilicus, 25.
Pericarditis, 2, 3, 5, 6, 7, 8, 9, 10, 99, 101, 138, 210, 323.
  adhesive, 101.
  hæmorrhagic, 8.
  latent, 7, 8.
  secondary, 7, 8.
  tubercular, 210.
  with cerebro-spinal meningitis, 323.
  without exocardial murmurs, 9, 10.
Pericardium, hæmorrhage in, 6.
  laceration of, 6.
  tapping of, 3.
Pericystitis, 181.
Peritonitis, 24, 25, 26, 27, 29, 89, 111, 112, 147, 163.
Peters, Dr. John C., cavernous transformation of the liver, 69.
Peters, Dr. John C., cerebro-spinal meningitis, 245.
  on pink eye, 372.
  sarcoma of thigh, 166.
  notes, 10, 17, 23, 29, 33, 38, 40, 41, 43, 45, 47, 49, 54, 61, 69, 103, 125, 152, 192, 209, 235, 246, 247, 312, 314, 316, 325, 332.
Peyer's patches, shaven beard appearance of, 258.
Pharynx, dermoid tumor of, 158, 161.
Phthisis, 219, 221. 304, 330, 341.
  catarrhal, 341.
  pneumonic, early formation of cavities, 330.
  in young children, 219-221.
Pia mater, congestion of, 325-329.
Pink eye and scarlet fever, 372.
Placental site, 280, 289, 291.
Pleurisy, 2, 10, 101, 138, 146, 147, 212, 341.
  septic. in an infant, 146-147.
Pneumonia, 2, 4, 7, 9, 10, 44, 138, 300, 364.
Polypus, nasal, 184.
Porter, Dr. William H., adhesive pericarditis, 101.
  aneurisms of the pulmonary artery, 361.
  aneurism of the thoracic aorta, 50-52.
  on atrophy of the lung, 374.
  cancer of the liver, 90.
  cancer of the pancreas, 90.
  cancer of the peritoneum, 89.
  cancer of the retroperitoneal glands, 83.
  cancer of the stomach, 261.
  carcinoma of the bladder, 345.
  carnification of the lungs, 341.
  catarrhal phthisis, 341.
  compound comminuted fracture of the skull, 259, 261.
  croupous pneumonia, 364.
  false carnification of the lung, 343.
  fissure of the skull, 85-86.
  intermeningeal hæmorrhage, 364.
  meningeal hæmorrhage and angio-lithic tumors of the choroid, 52.
  mixed sarcoma in a dog, 134.

PORTER, DR. WILLIAM H., multiple fractures of the ribs. 364.
  pachymeningitis, 85–87.
  pleurisy with effusion, 341.
  primary sarcoma of the kidneys, 343.
  round celled sarcoma of the orbit, 369.
  sarcoma of the heart, 343.
  syphilitic meningitis, 204.
POST, DR. ALFRED C., encephaloid of testicle, 47.
  sarcoma of the thigh, 165, 182.
  on Dr. Thebaud's case, 6.
  vesical calculi, 169.
Pregnancy, tubal, 191
Probing wounds of cavities, 253.
Prostate, cancer of, 189.
Pseudo-membranes, solvents for, 357.
Pulex penetrans, 110.
Pulmonary artery, aneurisms of, 358.
  opening into a pulmonary cavity, 42.
  thrombus of, 332.
PURDY, DR. A. S., ovarian tumor, 163.
Purpura hæmorrhagica, 334.
Pyelitis, 205.

RECTUM, cancer of, 64, 189.
Retina, glio-sarcoma of, 167.
Retroperitoneal glands, 48, 56, 89, 268.
  cancer of, 89.
  Hodgkin's disease of, 56.
  sarcoma of, 48.
Rheumatism, 10.
Ribs, multiple fractures of, 364.
REYNOLDS, DR JAMES B., on Dr. Thebaud's case, 6.
RIPLEY, DR. JOHN H., abscess of the brain, 37.
  cancer of the stomach and liver, 121-125.
  cerebro-spinal meningitis, 151.
  concentric hypertrophy of left ventricle, 184-188.
  epithelioma of the lip, 155-158.
  epithelioma of the neck, 285–288.
  exsection of nerves, 195.
  placental site, 230, 289–291.
ROBINSON, DR. ANDREW R., epithelioma, 157.
  scarlatinal nephritis, 79.
  transposition of the heart, 48.
ROBINSON, DR. BEVERLEY, atrophy of the lung, 373.
  calcareous degeneration of the heart valves, 374.
  chronic valvular disease of the heart, 93.
  foreign body in the nose, 162.
  mitral stenosis, 375.
  œdema of the larynx, 94–96.
  pneumonic phthisis, 330.
  purpura hæmorrhagica, 334.
  tricuspid regurgitation, 108.
  typhoid fever with ante-mortem heart-clot, 330.
† ROBERTS, DR. WILLIAM C., fibro-sarcoma of uterus, 54.
Rupure of the gall-bladder, 41.
  of the intestines, 246.
  of the jejunum, 277.
  of the kidney, 40.

SABINE, DR. GUSTAVUS A., hæmorrhagic pericarditis in a child, 8.
  malformation of the heart, 49.
SANDS, DR. HENRY B., adenoma of testicle, 48.
  composite tumor of the epididymus, 47.
  fibroids of uterus, 54.
  iron bullet in the omentum, 26.
  pistol-shot wound of the pericardium, 4.
  traumatic pericarditis, 3.
Sarcoma of the breast, 209, 223.
  cystic, of the breast, 209.
  cystic chondro, of testicle, 119.
  fibro, of the breast, 91–93.
  fibro-myxo, of the larynx, 354.
  glio, of the cerebellum, 305.
  glio, of the retina and choroid, 167.
  intraocular and orbital, 136–137.
  large round-celled, of testicle, 170–177.
  mixed, in a dog, 134.
  myxo, of the neck, 318.
  of the heart, 7, 8, 343.
  of the kidney, primary, 343.

Sarcoma of the leg, 81–82.
  of retroperitoneal glands, 48.
  of testicle, 47, 48.
  of the thigh, 165.
  of the tibia, 104–108.
  of the upper jaw, 143-146.
  osteoid, of the lungs and liver, 120.
  round-celled, of the orbit, 369.
Satterthwaite, Dr. Thomas E., adenoma of the breast, 224.
  bone encysted in the lung, 112.
  cancer of the stomach, 125, 262.
  cancer of the pancreas, 68.
  columnæ adiposæ and carbuncle, 177.
  epithelioma, 158.
  gangrenous dysentery, 111.
  gun-shot wound of thigh, 269–271.
  Hodgkin's disease, 58-61.
  hypertrophy of the heart, 188.
  hypertrophy of the ileum, 238.
  leucocythemia, 266–269.
  multilocular ovarian tumor, 163.
  occlusion of the ductus communis, 68.
  on atrophy of the lung, 374.
  on bacteria, 32.
  on diphtheritic endocarditis, 33.
  osteo-cholesteatoma of the Sylvian fissure, 113.
  pericystitis, 182.
  sarcoma of the breast, 223.
  scarlatinal nephritis, 76.
  scirrhus of the breast, 222.
  tonsillar calculus, 235.
  trichinosis, 133.
  wounds of the chest, 256.
Sayre, Dr. Lewis A., fibro-chondroma of the tuber ischii, 108.
  laceration of the pericardium, 6.
  suture left in wound, 27.
Scarlatinal nephritis, 73-79.
Scarlet fever and pink eye, 372.
Secondary pericarditis, 7.
Seguin, Dr. Edward C., on abscess of the brain, 33–38.
Shock, 5, 6, 248, 277.
Shrady, Dr. John, cancer of the kidney, 193.
Shrady, Dr. George F., cancer of the stomach, 125.
  gunshot wounds of the abdomen, 248-253.
  lipoma, 14.
  shock, 278.
  testimonials to, 213.
Sigmoid flexure, redundant, 215–219.
Skull, fracture of, 259.
Spleen, arsenic in, 117.
  Hodgkin's disease of, 56.
Suture left in wound, 27.
Swift, Dr. Foster, peritonitis following erysipelas, 25.
Swift, Dr. George M., pericarditis, 1.
  pleurisy, 2.
  pneumonia, 3.
Swift, Dr. Thomas D., cancer of the dura mater and lungs, 114.
Swift, Dr. William J., diphtheritic laryngitis, 367.
Syphilis, prehistoric, 347.
Sylvian fissure, osteo-cholesteatoma of, 113.
Smith, Dr. J. Lewis, cerebro-spinal meningitis, 239–246.
  continued fever from scanty water supply, 331.
  malformation of the heart, 49.
  nasal diphtheria, 356.
  septic pleurisy in an infant, 146-147.
  solvents for pseudo-membranes, 357.
  tonsillar calculus, 234.
Spinal cord, changes of, 204.
Stenosis, mitral, 375.
Stimson, Dr. L. A., sarcoma of thigh, 183
  Dr. Thebaud's case, 6.
Stomach, cancer of, 261.
†Stone, Dr. John O., malformation of the heart, 49.
Strangulation of the ileum, 215.
Subclavian aneurism, 196–204.
Subperitoneal hæmorrhage, 249.
Sudden death, 279-285.

Tapping the chest, 102.

TAUSZKY, DR. RUDOLPH, fibro-myoma of the uterus, 53.
    membranous dysmenorrhœa, 79.
TAYLOR, DR. ISAAC E., rupture of ovarian cysts, 164.
Temporal bone, caries of, 258.
Testimonials to Dr. Geo. F. Shrady, 213.
Testicle, adenoma of, 48.
    cancer of, 47, 48.
    composite tumor of, 46.
    congenital dislocation of, 209.
    cystic chondro-sarcoma of, 119.
†THEBAUD'S, DR., case, 3–6.
THOMAS, DR. T. GAILLARD, fibroids of the uterus, 54.
Thrombus of the pulmonary artery, 332.
Thoracic aorta aneurism of, 50, 52.
Thyroid gland, cysto-adenoma of, 373.
Tonsillar calculus, 234.
Tracheotomy, 367.
Trichinosis, 130–134.
Tubercular glands of the neck, 320.
Tubal pregnancy, 191.
Tumors of the choroid, 53.
Typhoid fever, aggravated lesions of, 235–239.
    lesions of diverticulum, 42.

ULCER, epithelial, 286.
Umbilicus, perforation of, 25.
Uræmia, 265.
Uterus, epithelioma of, 288.
    fibro-myoids of, 54.
    sarcoma of, 54.
    subinvolution of, 230.

VALVES of the heart, calcareous degeneration of, 374.
Valvulitis deformans, 303.
Valvular disease of the heart 51, 303.
VAN BUREN, DR. WM. H., hard lipoma, 14, 15, 16.
Ventricles of the brain, suppuration of, 40.
Vertebral arteries, aneurism of, 180.
VOSS, DR. LOTHAIR A., lipoma in a child, 14.
WALSH, DR. SAMUEL J., tubal pregnancy, 191.
WAGNER, DR. CLINTON, dermoid tumor of the pharynx, 158–161.
WATSON, DR. B. A., chronic cystitis, 272.
    double ovarian cyst, 187.
    peritonitis, 24.
    removal of gunpowder, 329.
    rupture of a lung, 228.
    subinvolution of the uterus, 230.
WEIR, DR. ROBERT F., abscess of the brain, 38.
WELL, DR. JOHN A., arsenical poisoning, 115.
WENDT, DR. EDMUND C., aneurism of the ascending aorta, 301.
    glio-sarcoma of the cerebellum, 305-309.
    Hodgkin's disease, 55–58.
    enormous hypertrophy of the ileum, 236.
    irregular typhoid fever, 332.
    large round-celled sarcoma of the testicle, 170-177.
    lesions of typhoid fever, 235-239.
    nephritis, 264.
    nephro-lithiasis, 263.
    obliteration of one kidney, 263.
    obstruction of the bowels, 236.
    perimetritis, 304.
    sarcoma of the tibia, 104-108.
    retained pessary, 304.
    strangulation of the ileum, 215.
    trichinosis, 130–134.
    uterine fibroids, 189.
    valvulitis deformans, 303.
    vesical, renal, and biliary calculi, 169.
WHITE, DR. FRANCIS V., sarcoma of the testicle, 47.
Wickersheimer's fluid, 104, 168.
WIENER, DR. RICHARD G., aneurism of the transverse arch of the aorta, 226.
† WILKES, DR. GEORGE, laceration of the bowels, 26.
WRIGHT, DR. J. WILLISTON, congenital hairy lipoma of the mouth, 11.
Wound of the femoral artery, 270.
Wounds of the chest, 256.